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Soviet Mobile Missile Activity
1 July – 30 September 1984
Summary Report 25 (S)

DEPLOYED STRATEGIC SSM FACILITIES
BE: Various
USSR

Basic Imagery Interpretation Report

Top Secret

[redacted]

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RCA-01/0017/84
NOVEMBER 1984
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DISSEMINATION CONTROL ABBREVIATIONS

NOFORN -	Not Releasable to Foreign Nationals
NOCONTRACT -	Not Releasable to Contractors or Contractor/Consultants
PROPIN -	Caution-Proprietary Information Involved
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SOVIET MOBILE MISSILE ACTIVITY
1 JULY–30 SEPTEMBER 1984
SUMMARY REPORT 25 (S)

PREFACE

i. This is the 25th in a series of quarterly reports prepared by NPIC on Soviet activities relevant to development and deployment of Soviet offensive mobile missile systems judged to be of strategic interest. (S/WN)

ii. The report has five substantive sections—Highlights and Late Developments, ICBM Activity, IRBM Activity, SRBM Activity, and Related Activity. The Related Activity section provides information on facilities or unidentified activities which NPIC believes may have a potential mobile missile association. This report also includes an appendix which contains the significant baseline information that NPIC considers most useful for Soviet mobile missile analysis. A list of acronyms and abbreviations also appears in the appendix. (S/WN)

iii. Information in this report covers the period essentially from 1 July through 30 September 1984. . Significant activity identified after the cutoff date has also been included under Late Developments, in the Highlights and Late Developments section. This report updates the preceding summary report: RCA-01/0014/84, *Soviet Mobile Missile Activity, 1 April–30 June 1984, Summary Report 24 (S)*, Aug 84 (TOP SECRET CODEWORDS/

iv. Comments and queries regarding this report are welcome. They may be directed to the NPIC Mobile Missile Coordinator, or to the contributing analysts identified in the appendix. If you would like to change the number of copies you receive or have any other questions of distribution, please also call. (C)

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Highlights and Late Developments

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FIGURE 1. LOCATIONS OF SOVIET MOBILE MISSILE ACTIVITY HIGHLIGHTS

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HIGHLIGHTS

1. Highlights of this reporting period are summarized below (Figure 1):

	Paragraph(s)	Figure(s)
ICBMs		
• The tenth, 11th, and 12th launches of the SS-X-25 at Plesetsk were probably from a road-mobile TEL.	5	
• A second type C single-bay garage was identified under construction in the Missile Handling Facility at Plesetsk.	6	
• The 13th launch of an SS-X-24 was probably from a rail-TEL.	9-10	5
• The Soviets continued the effective use of camouflage, concealment, and deception related to the testing of the SS-X-25 and SS-X-24.	21-24	
• Type C single-bay garages were confirmed at Yurya Mobile Base 6, indicating that it will probably support the SS-X-25.	27	8
IRBMs		
• The 51st through 56th SS-20 mobile missile bases were identified at Brody, Sokal, Barnaul, Kansk, Usovo, and Belokorovichi, respectively.	36, 37, 49, 51, 60, 68	
• The nine single-bay garages at Yurya Mobile IRBM Base 3 were dismantled.	57	16
• The flight test program of the KY-15, the probable follow-on to the SS-20, started at Kapustin Yar.	79	19
• A new-type TEL and a missile canister dolly probably for the KY-15 were identified at Kapustin Yar.	85-87	20 & 21
• Modified hardened dome antennas, possibly for communicating with airborne command posts, were at the Romny and Lutsk division command posts.	43, 48	
• A new type of satellite communications station, designated Type E, was observed at the Mozyr, Romny, and Lida division C3 facilities.	39-40, 43, 56	
Related Activity		
• Early indications of what may be SS-20 construction were observed at Korosten, Zhitomir, and Kansk. (TSZ)	116-118	

LATE DEVELOPMENTS

Kansk

• [redacted] the former Kansk possible SS-20 construction area was confirmed as a new mobile missile base, possibly for the SS-20 IRBM. It has been designated Kansk Mobile Missile Base 4. Tree clearing for at least five probable single-bay garages, two probable multibay garages, and a loop road was identified in a pattern typical of mobile missile base construction. This construction area was [redacted]

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Akhtyrka

• [redacted] SS-20 equipment consisting of 12 canvas-covered missile support vans and one probable canvas-covered TEL with training canister had arrived in the vehicle maintenance area of Akhtyrka Mobile IRBM Base 2. Construction was continuing throughout the facility. The operations area was in the late stages of construction, with all nine single-bay garages and three four-bay garages externally complete. Open cable trenches remained evident throughout the operations area, and construction materials/equipment remained in front of two of the four-bay garages. The C3 and support areas were both in the late stages of construction. (S/WN)

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Krolevets

- , SS-20 equipment had arrived at Krolevets Mobile IRBM Base 2. The equipment, which was located in two areas, consisted of at least ten probable missile support vans and one TEL with training canister. The TEL was in the support area. Construction was continuing throughout the facility. In the operations area, all nine single-bay garages and all three four-bay garages were externally complete. However, modifications to the missile-ready bunker were not complete, and paving blocks had not been installed at one of the major intersections within the area. Construction throughout the rest of the base was in the late stages. (S/WN

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Yurya

- The SS-20 single-bay garages at Mobile IRBM Base 1 were being dismantled. one single-bay garage had been completely dismantled, and a second garage had been partially dismantled. This is the second of the five operational SS-20 bases in the Yurya complex at which single-bay garages have been dismantled. all nine garages at Mobile IRBM Base 3 were dismantled. (S/WN/

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Glazov

- Efforts to further conceal stored single-bay garage components were observed at Glazov Missile Support Rear Depot At least five supports and one and possibly two new canvas covers were placed across the stockpiled garage components (Figure LD-1)

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Intercontinental Ballistic Missile Activity

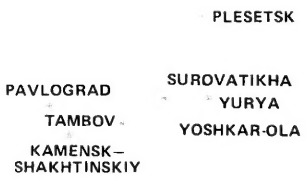

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FIGURE 2. LOCATIONS OF SOVIET MOBILE ICBM-ASSOCIATED FACILITIES

INTERCONTINENTAL BALLISTIC MISSILE ACTIVITY

Introduction

2. This section of the report addresses activity related to the development, deployment, and production of mobile intercontinental ballistic missiles (Figure 2). Discussion covers the identification of type C single-bay garages at Yurya Mobile Missile Base 6; continued construction of the mobile missile base at Yoshkar-Ola; additional analysis of the possible rail-TEL for the SS-X-24; the fourth launch of an SS-X-24 probably from a rail-TEL; and an update of the continued expansion of the two probable ICBM-associated solid motor production facilities at Kamensk-Shakhtinskiy and Pavlograd. (S/WN/

Development and Testing

Plesetsk MSTC

3. **Mobile Missile-Associated Facilities.** All four mobile ICBM bases at Plesetsk (MOB 1, MOB 2, LTS 5, and LTS 6; Figure 3) and all 42 of the launch reference positions (LRPs) were observed at least once. Canvas-covered probable azimuth alignment devices (AADs) were occasionally detected in some of the LRPs. In general, all four mobile missile-associated bases continued to be occupied as evident from the occasional observation of personnel, vehicle tracks, and facility maintenance. In addition, both the complex driver/dispersal training area near LTS 16 and the one near MOB 1 were used during the quarter. However, no mobile missile-associated vehicles were identified in either of these areas. (S/WN)

4. **Mobile Missile Base 2.** The probable C3 upgrading that has been in progress since March continued, and at the end of the reporting period, the south side of the the base command post bunker was still exposed. This activity parallels that seen at the four Plesetsk SS-16 bases prior to their conversion from older ICBM systems. The upgrading may be preparing MOB 2 to support SS-X-25 operations, or it may be related to an overall SRF C3 upgrading program. If either is the case, similar activity should also be observed at the other three SS-16 bases. (S/WN)

5. **SS-X-25 Activity.** The tenth, 11th, and 12th tests of SS-X-25 ICBMs were probably from a TEL at LTS 23 (Table 1). No prelaunch activity was observed before the 26 July launch of an SS-X-25 from Plesetsk (DEFSMAC S/DQ/664-84 [S]). On the silos at LTS 23 and collocated LTS 24 were both open. Both silos have been open after previous probable mobile tests of the SS-X-25. prelaunch activity was observed at LTS 24. A camouflaged probable TEL and a large camouflaged vehicle were on site, and the silo door was open. The probable TEL was on the silo apron next to a probable test-range version of an azimuth alignment device. The other camouflaged vehicle was at the intersection of the site access road and silo apron. No vehicles were observed at the collocated Plesetsk ICBM Launch Test Site 23, where the silo door was closed. On 10 September, DEFSMAC reported the launch of an SS-X-25 from Plesetsk at 1330Z (DEFSMAC . No evidence of the launch was observed approximately 20 hours and 30 minutes after the launch. On 2 October, DEFSMAC reported the unsuccessful test of an SS-X-25 from Plesetsk No prelaunch activity was identified, and no postlaunch imagery has been acquired. It should be noted that because of effective CC&D practices, the TEL for the SS-X-25 still has not been identified at Plesetsk. (TSR)

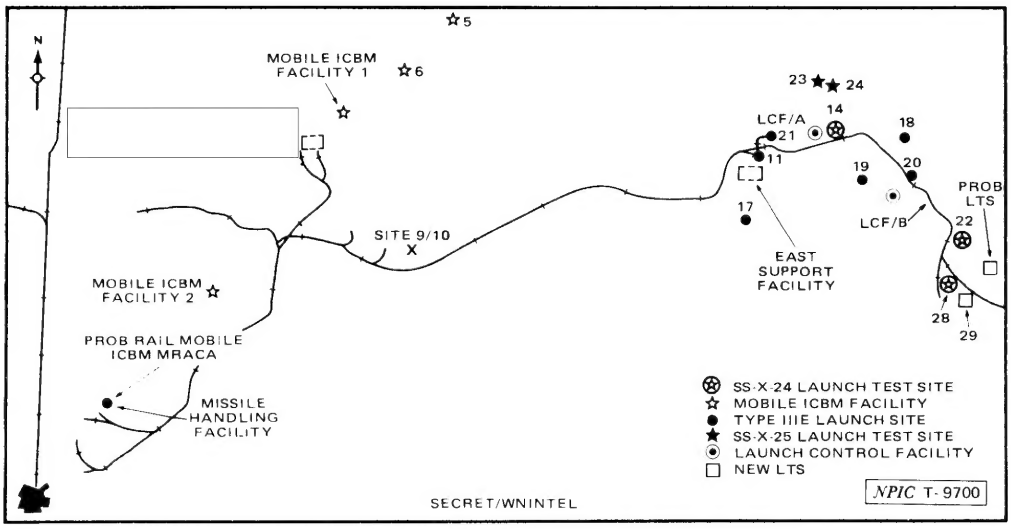

FIGURE 3. PLESETSK MISSILE AND SPACE TEST CENTER SSM

Table 1.
SS-X-25 Launch Summary

Launch Date*	Launch Site (mode) **	Remarks*
8 Feb 83* *	LTS 23 (silo)	Success
5 May 83	LTS 23 (silo)	Success
31 May 83	LTS 23 (silo)	Success
10 Aug 83	LTS 23 (TEL)	Failure
25 Oct 83	LTS 23 (TEL)	Success
19 Feb 84	LTS 23 (TEL)	Success
26 Mar 84	LTS 23 (TEL)	Success
23 Apr 84	LTS 23 (TEL)	Success
23 May 84	LTS 23 (TEL)	Success* * *
26 Jul 84	Prob LTS 23 (TEL)†	Success
10 Sep 84	LTS 24 (TEL)†	Success
2 Oct 84	Prob LTS 23/24 (TEL)†	Failure

* * *First reduced range test

†No prelaunch activity or any direct evidence of the launch was identified

This table is SECRET WNINTEL.

6. **Plesetsk Missile Handling Facility.** Modification/construction in the modified SS-16/SS-X-25 receiving/inspection/checkout area in support of the SS-X-25 has increased. Construction of a second type C single-bay garage and a second 18-meter-deep, nine-bay garage was identified east of the rail line. When these structures are completed, the following buildings will have been constructed east of the rail line in support of the SS-X-25:

- two type C single-bay garages;
- two 18-meter-deep, nine-bay garages;
- one missile-/payload-associated clerestory building;
- one three-bay garage;
- one four-bay garage;
- one fourth-generation calibration building;
- one two-bay, 18-meter-deep, open-sided shed; and
- one single-bay, drive-through building.

The numbers and types of buildings being constructed in this area indicate that the area east of the rail line will support the SS-X-25 ICBM as the battalion-sized crew training area at Kapustin Yar Bivouac/Troop Training Area supports the SS-20 IRBM. In addition, wall stanchions for the new probable clerestory building in the northwest section of the facility were installed. This building will probably have low-bay outer sections that are 42 by 12 by 8 meters and a high-bay center section about 42 by 20 meters (height undetermined). No road-mobile ICBM equipment has been identified in this facility, and no payload-associated crates were observed during the quarter. (S/WN)

7. **Plesetsk Complex Driver/Dispersal Training Area** (previously reported as the complex DDTA near LTS 16). Construction of a new GSE parking/maintenance area continued throughout the reporting period at this double-fence-secured facility. Two quonset-like buildings were completed, a third was under construction, and a type C garage was constructed between the two quonset-like buildings. Sufficient space to build another type C SBG exists between the inner completed quonset-like building and the quonset-like building under construction.

. This new GSE parking/maintenance area and the driver/dispersal training area will probably support SS-X-25 field training exercises. (S/WN)

8. **Launch Test Site 21.** No activity was identified during the reporting period to indicate that this site will participate in the flight test program of the SS-X-25. (S/WN)

9. **Rail-Mobile SS-X-24-Associated Activity.** One test of an SS-X-24 was conducted during the reporting period, probably from a rail-TEL (Table 2). In addition, construction of a fourth probable rail-mobile launch test position was identified at Plesetsk ICBM Launch Test Site 28, and construction of additional probable rail-mobile, ICBM-associated facilities continued. (TSR)

Table 2.
SS-X-24 Launch Summary*

Launch Date**	Launch Site (mode)***	Remarks**
26 Oct 82	LTS 28A (silo)	Failure
28 Dec 82	LTS 22 (silo)	Failure†
15 Mar 83	LTS 28A (silo)	Failure
26 May 83	LTS 22 (silo)	Failure
6 Sep 83	LTS 28A (silo)	Failure
23 Nov 83	LTS 22 (silo)	Success
24 Dec 83	LTS 28A (silo)	Success
18 Jan 84	LTS 22 (silo)	Success
15 Feb 84	LTS 22 (silo)	Failure
28 Mar 84	LTS 28 (rail-TEL)	Failure
8 Jun 84	LTS 28 (rail-TEL)	Success
28 Jun 84	LTS 28 (rail-TEL)††	Success
7 Sep 84	LTS 28 (rail-TEL)	Success

†Although the payload impacted on the Kamchatka Peninsula, the PBV apparently did not function properly

††Possible rail TEL identified on 27 June

This table is TOP SECRET RUFF

10. One to five railcars were in the rail-mobile SS-X-24 launch test facility (LTF) at LTS 28 Rail-mobile prelaunch activity was identified when at least 11 railcars and two engines were in the LTF (Figure 5). Five railcars were on each of the spurs that straddle the buried launch control building, and two engines and at least one railcar were on the spur leading into the 102-meter-long, rail-in shed. The partially enclosed sides of the rail shed precluded determining whether any other railcars were under the shed. the number and location of the railcars and engines did not appear to change, and the presence of the possible rail-TEL identified could not be confirmed. DEFSMAC reported the launch of an SS-X-24 from Plesetsk 84 [S]). Based on the activity identified during early September and previously identified rail-mobile activities, we believe that this missile was probably launched from a rail-TEL at LTS 28. If the rail-TEL was present only four railcars were on the north spur. From through the close of the reporting period, as many as four railcars were on one of the spurs that straddle the buried launch control building. (TSR)

11. During June, the Soviets began constructing a fourth probable rail-mobile SS-X-24 launch test position in the launch test facility. (TSR)

12. In late June, extension of the rail spur north of the buried launch control building was begun when ballast was added and graded in line with the east end of the rail spur. three objects possibly associated with azimuth alignment of the missile guidance package were just past the end of the existing north rail spur in the area of the extension. When the extension of the spur is complete and the remaining probable azimuth alignment equipment is installed for the new probable position, four probable rail-mobile launch test positions will be in the LTF—two on each of the spurs that straddle the buried launch control building. Construction of the fourth launch test position continued at a moderate pace through the end of the reporting period. The probable rail-mobile launch test positions at LTS 28 provide a unique signature for a rail-mobile SS-X-24 launch point that should be kept at the TOP SECRET RUFF classification level. (TSR)

13. trees were being cleared in a line west of the rail-mobile launch test facility toward the separately secured, rail-served section of Plesetsk Launch Control Facility B. Similar clearing was started from the 102-meter-long, rail-in shed at Launch Control Facility B toward the rail-mobile launch test facility during July. This tree clearing appears to be in a line without regard for terrain and suggests that equipment requiring line-of-sight will be installed at one or both facilities. (S/WN)

(Continued p. 8)

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15. At the rail-served section of Plesetsk Launch Control Facility (LCF) B, no missile- or C3-associated railcars were identified. a swath was being cleared through the trees south of the 102-meter-long, rail-in shed toward the rail-mobile SS-X-24 launch test facility at LTS 28. The trees were being cleared in a line without regard for the hilly terrain or streams. The unsecured section of the facility continued to be used as a temporary rail-transloading area for construction material delivered by rail for the modified Type IIIX LCF section of the facility. (S/WN)

16. **Rail-Mobile SS-X-24 Missile Receiving and Checkout Area (MRACA).** Construction of the rail-mobile SS-X-24 MRACA continued. Activity identified during the reporting period included the continuing construction of a large, probably rail-served building with a possible rail-through shed at its entrance; the near completion of a probable support building just north of the new large rail-served building; the near completion of a 102-meter-long, rail-in shed near the new building; new, unidentified construction just southwest of the rail-mobile MRACA (but outside the security fence). (S/WN)

17. **East Support Facility.** Most construction at the new RTP area continued at a moderate pace; however, no new rail sections were installed in the spur that extends toward the main east-west complex road. It has not been determined if this spur will be a rail-turning wye or another rail-served facility. Rail sections and rail line components were still in the RTP area at the end of the reporting period. (S/WN)

18. **Rail Line Construction at Plesetsk.** Construction of the new section along the eastern extension of the main complex rail line continued slowly. It still cannot be determined whether this new spur will be a rail siding or the start of another major rail spur at the eastern end of the rangehead. Construction of the rail-to-road transloading point just outside LTS 28 progressed slowly. During July, a rail stop was installed about 0.25 nm southwest of the site, indicating that the eastern rail line extension will not be extended past its current terminus at this time. At the end of the reporting period, the only structure still under construction was the transloading dock. (S/WN)

19. **Possible Rail-Mobile ICBM-Associated Activity.** At the rail-turning wye approximately 1 nm south-southeast of the Missile Handling Facility, reconstruction of the rail bed and installation of the rail line was completed No additional grading/leveling or construction activities were identified. The function of this area has not been determined. (S/WN)

20. Construction of the new rail-served area north of the SS-13 receiving, inspection, and checkout area continued. The new building will have two rail-through bays (each 84 by 9 by 9 meters) and a probable administration/support bay . Also, the rail line was extended into the new area from the spur that originally terminated next to the SS-13 interim missile storage building. The function of this area has not been determined, but it probably is not being constructed to support SS-13 operations. (S/WN)

21. **CC&D Activity.** The Soviets continued the effective use of CC&D techniques at Plesetsk. Although 13 tests of the SS-X-24 and 11 tests of the SS-X-25 have been conducted, neither missile canister has been observed (Table 3). Moreover, even though four probable tests of the rail-mobile variant of the SS-X-24 and seven tests of the road-mobile version of the SS-X-25 have been conducted, no system-unique equipment—including a road- or rail-mobile TEL—has been confidently identified. We believe the lack of mobile missile signatures is the direct result of Soviet concealment practices such as positioning mobile SS-X-25 equipment in buildings and under camouflage material suspended from poles, parking rail-mobile SS-X-24 equipment in rail sheds and buildings, and possibly designing and covering a rail-TEL for the SS-X-24 so that it is nearly indistinguishable from other rollingstock. (TSR)

Table 3.
Ballistic Missile Canister Identification Summary

Missile System	First Flight Test	First Canister Identified	Location
SS-16	Mar 72	Jul 72	Plesetsk MSTC MHF and LTS 5
SS-17	Sep 72	Aug 72*	Tyuratam MTC LTS V1 (then LTS S6)
SS-18	Oct 72	May 73**	Tyuratam MTC LTS R8 and LTS R11
SS-19	Apr 73	Apr 73	Tyuratam MTC LTS G5/6
SS 20	Sep 74	Sep 74	Kapustin Yar MTC Cmplx C Site 1
SS-X-24	Oct 82	None yet	
SS-X-25	Feb 83	None yet	

*This canister was observed during the probable initial loading of this silo about a month before the first flight test of an SS-17

**At least a section of this missile canister was identified during April 1972 at Tyuratam MTC LTS H1/2 during the popup/LAD test phase of the flight test program. Although the identification at that time was tentative, the lack of confidence in the identification was due to poor image interpretability, not Soviet CC&D practices

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22. The Soviet practice of building structures at launch test facilities—sliding-roof garages and rail-in sheds, for example—in which to house mobile launchers has severely hampered the identification of mobile launchers during flight test programs. The reasons for building these types of structures at launch test sites probably include simulating deployed conditions, providing environmental protection, and implementing CC&D practices. For the road-mobile SS-X-25, the type C single-bay garage at LTS 23 probably simulates the operational, ingarrison environment for the SS-X-25 TEL and contributes to decreasing the likelihood of observing the SS-X-25 TEL. Moreover, this onsite single-bay garage allows the Soviets to bring

a loaded TEL to the test site well before a launch [redacted] Similar considerations probably also led to the construction of seven partially or fully enclosed rail sheds for the rail-mobile SS-X-24. One shed is 45 meters long, fully enclosed (except for the ends), and located on a spur that leads directly into the rail-mobile missile receiving and checkout building. [redacted] The six remaining sheds—five 102 meters long and one 300 meters long—are partially enclosed and situated either in a launch-related area or in an area to provide temporary cover for many railcars. The six partially enclosed sheds are all 6 meters high, and the top 3 meters on each side have been covered, like the roof, with thin prefabricated sections. This [redacted] (S/WN)

[redacted]

24. [redacted] the possible rail-TEL has been imaged [redacted] the railcar identified as a possible rail-TEL could not be confirmed (Figure 5). (S/WN)

Deployment

Yoshkar-Ola SSM Complex

25. **Mobile Missile Base 1.** Construction continued at this base, which is probably intended for deployment of the SS-X-25 mobile ICBM. [redacted] single-bay garage components had arrived and were positioned near four of the type C single-bay garage foundations. Three additional type C garage foundations were identified, and it now appears that at least nine SBGs will be constructed (Figure 7). [redacted] two of the seven-bay garages (previously reported as eight-bay garages) were externally complete with roof vents installed. The third seven-bay garage was externally complete but did not have roof vents. In the C3 area, the ten-bay garage and the C3 building were in the late stages of construction. A roof-mounted antenna array, similar to those seen at mobile SS-20 regimental C3 facilities, was under construction on the C3 building. No other antennas were visible. (S/WN)

26. [redacted] at the Yoshkar-Ola ICBM Division Command Post Bunker, a small personnel bunker was being uncovered and will probably be removed, possibly in preparation for the construction of new antennas. (S/WN)

Yurya SSM Complex

27. **Mobile Missile Base 6.** At Yurya Mobile Missile Base 6 (formerly LP 11), new mobile missile-associated construction continued. [redacted] foundations for six type C single-bay garages could be confirmed, and clearings probably for three more had been identified (Figure 8). Three seven-bay garages were in a late stage of construction, and modifications were continuing on the west missile-ready bunker. Vents have already been installed on the east missile-ready bunker. Tree clearing for a fenceline behind the missile-ready bunkers indicated that the missile-ready bunkers will be included within the operations area, unlike those at the Yoshkar-Ola Mobile Base, where a fenceline separates the operations area from the former missile-ready bunkers. (S/WN [redacted]

Production

Kamensk-Shakhtinskiy

28. The large fabrication-type building was nearly complete externally, and a probable rail spur to serve the building was under construction at Kamensk-Shakhtinskiy Solid Motor Production Plant. Ground preparations for two new buildings and a new roadway were also in progress. No additional construction occurred on the possible bay-charger line. (S/WN)

Pavlograd

29. At Pavlograd Solid Motor Production Plant, construction on both the large fabrication building and the new three-bay building continued. Construction on a rail spur to the new fabrication building and a new bay-charger line continued. Both the Kamensk-Shakhtinskiy and Pavlograd plants are involved in various stages of strategic rocket motor production, including production of SS-X-25 motors at Kamensk-Shakhtinskiy and production of SS-X-24 motors at Pavlograd. (S/WN)

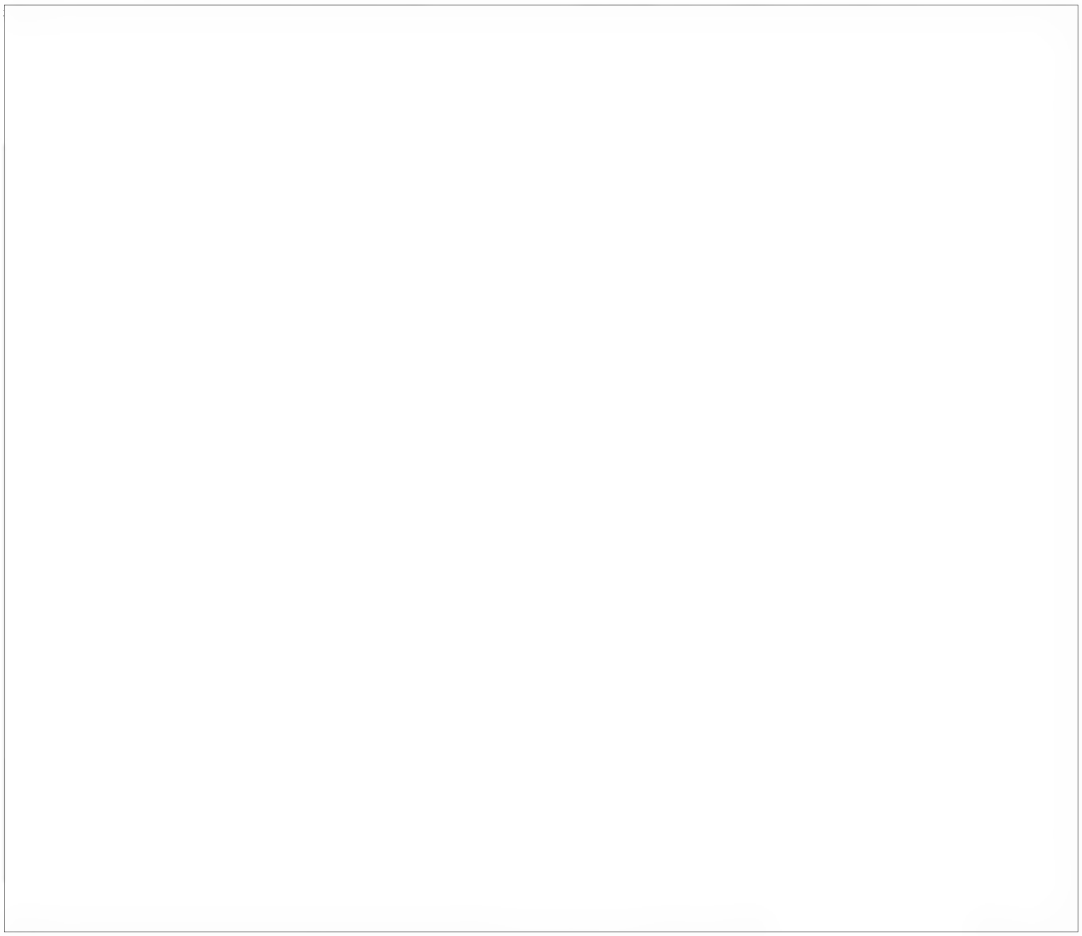
30. At Pavlograd Solid Motor Assembly and Test Support Facility (SMATSF), the building program which was resumed and expanded in early 1983 continued. In addition, construction in a new area of expansion was started along the northeastern boundary of the facility. The new expansion area includes construction for a concrete road and two probable rail spurs and ground preparations for two new buildings. Analysis of present fence realignments indicates that the new construction will approximately double the usable area of the facility. This construction is believed to be related to the new construction at the Pavlograd Solid Motor Production Plant. (S/WN)

31. Additionally at the SMATSF, construction of a new rail shed has begun on a new rail spur next to the existing 124-meter-long rail shed. This new shed could be as long as 350 meters when complete. (S/WN)

Missile Support Rear Depots

32. **Surovatikha.** The pace of construction increased in the new missile receiving and storage area at Surovatikha Missile Support Rear Depot (Figure 9). Construction continued on the missile receiving and checkout building in the revetted area of the new storage facility. This 60- by 18-meter building will consist of a 12-meter-wide, high-bay section and a 6-meter-wide, low-bay section. Construction was also started on a third missile storage building, and space is available for two more missile storage buildings. This facility could be at least partially operational in mid-1985. Although this specialized storage facility has been under construction since 1978, the increase in the pace of construction at this time suggests that the area is probably associated with the SS-X-24 and/or the SS-X-25. (S/WN)

33. **Tambov.** Construction continued on the two missile storage buildings at Tambov Missile Support Rear Depot. These two new buildings should be completed by the end of this year. In addition, a rail spur is under construction, and associated expansion is taking place in the open transshipment yard in the eastern part of the depot. This expansion could be related to the storage of the SS-X-24 or the SS-X-25. (S/WN)



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Intermediate-Range Ballistic Missile Activity

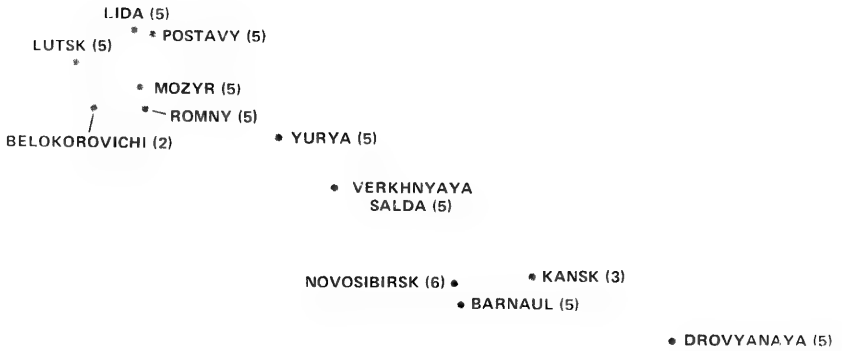

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FIGURE 10A. MOBILE IRBM DIVISIONAL DEPLOYMENT AND NUMBER OF BASES IN EACH

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FIGURE 10B. LOCATIONS ASSOCIATED WITH SOVIET MOBILE IRBM PRODUCTION AND TESTING

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INTERMEDIATE-RANGE BALLISTIC MISSILE ACTIVITY

Introduction

34. This section of the report addresses notable activity identified during this reporting period regarding deployment, development, and production of mobile intermediate-range ballistic missiles (IRBMs). It includes information on the identification of the 51st through 56th mobile IRBM bases at Brody, Sokal, Barnaul, Kansk, Usovo, and Belokorovichi, respectively, an indication of the continued accelerated Soviet deployment of SS-20s; the dismantlement of all nine single-bay garages at Yurya Mobile IRBM Base 3; the onset of the flight test program for the KY-15 (probable follow-on to the SS-20); and the identification of a new TEL and missile canister dolly at Kapustin Yar (Figures 10A and 10B). Also provided is a summary of significant activity observed at deployed bases, field training areas, and testing and production facilities. Tables summarizing field training areas, mobile missile base construction, and C3 activity can be found in the appendix. (TS

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Deployment

35. Mobile IRBM base construction continued at an unprecedented rate (Figure 11). Six new SS-20 bases were identified during this reporting period, bringing the number of new SS-20 bases identified this year to 12. The SS-20 force now consists of 56 confirmed bases: 42 complete and 14 under construction (one of the 14, Yurya Mobile IRBM Base 3, was being dismantled). Preparations for the probable construction of at least five more bases were in progress at three former SS-4 launch sites—Korosten launch site 2, Belokorovichi launch site 1, and Zhitomir launch site 2—and in two areas in the Kansk Division (see paragraph 118). If these are confirmed as bases and if the Pruzhany and Ruzhany bases are resubordinated to Lida,* the Soviets would have 11 SS-20 divisions of five bases each and one division, Novosibirsk, with six. (S/WN

25X1

Western USSR/Vinnitsa SRF Army

25X1

25X1

Belokorovichi Division

36. **Usovo.** the 55th mobile IRBM base was identified in a very early stage of construction at Usovo MRBM Launch Site 3, a former SS-4 launch site in the Belokorovichi Division. This is the first confirmed SS-20 base in

25X1

*This possibility is based on the proximity of the regiments to the Lida Division and the absence of SS-20-related activity at the Pruzhany division-level facilities. (S/WN)

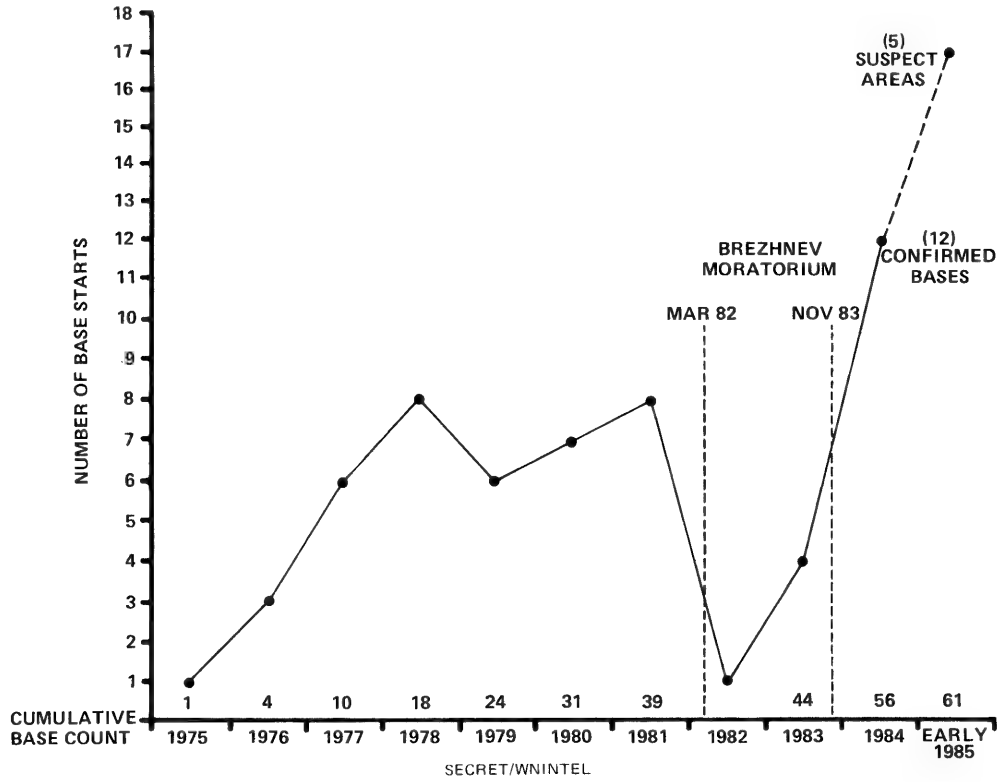

FIGURE 11. SS-20 BASE CONSTRUCTION STARTS BY YEAR

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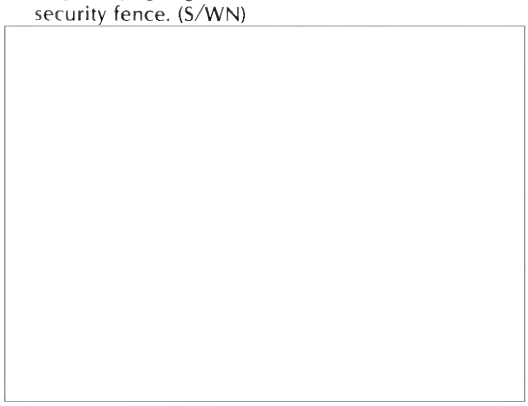
25X1

the Belokorovichi Division. The new base, designated Usovo Mobile IRBM Base 1, was previously reported in the Late Developments section of Mobile Missile Summary Report 24. Launch site 3 was deactivated in April 1984, and tree clearing was first observed in the launch area additional tree clearing was observed in the propellant storage area, footings for a four-bay garage were identified in what will become the operations area of this base. Two additional clearings, large enough to accommodate four-bay garages, were also present. Additional footings, possibly for a C3 building, were observed along the perimeter of the operations area (S/WN)

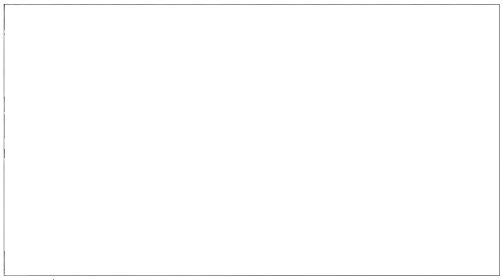
37. **Belokorovichi.** the 56th mobile IRBM base was identified under construction at Belokorovichi MRBM Launch Site 2. The new base, designated Belokorovichi Mobile IRBM Base 1, is the second mobile IRBM base identified in the Belokorovichi Division. This site was reported as a deactivated SS-4 site As deactivation was taking place, initial signs of tree clearing were noted. three clearings for four-bay garages were identified. One of these contained the actual footings for a garage, a second set of footings had been installed. Also identified were foundations for a C3 building and its associated multibay garage, clearings for several probable single-bay garages, and a cleared swath for a security fence. (S/WN)



Mozyr Division

39. **Mozyr.** A new type of satellite communications station was under construction at the Mozyr IRBM Division Headquarters Radio Communications Transmitter The station, designated Type E, was in the late stages of construction and consists of a two-story, building with two square antenna pedestals on the roof. raised section is between the pedestals. No antennas were observed. (S/WN)

40. The Mozyr Division already has a Type A satellite communications station. The addition of the Type E station would make Mozyr the only SS-20 division with two permanent satellite communications stations. The reason for this increased satellite communication capability has not yet been determined. (S/WN)



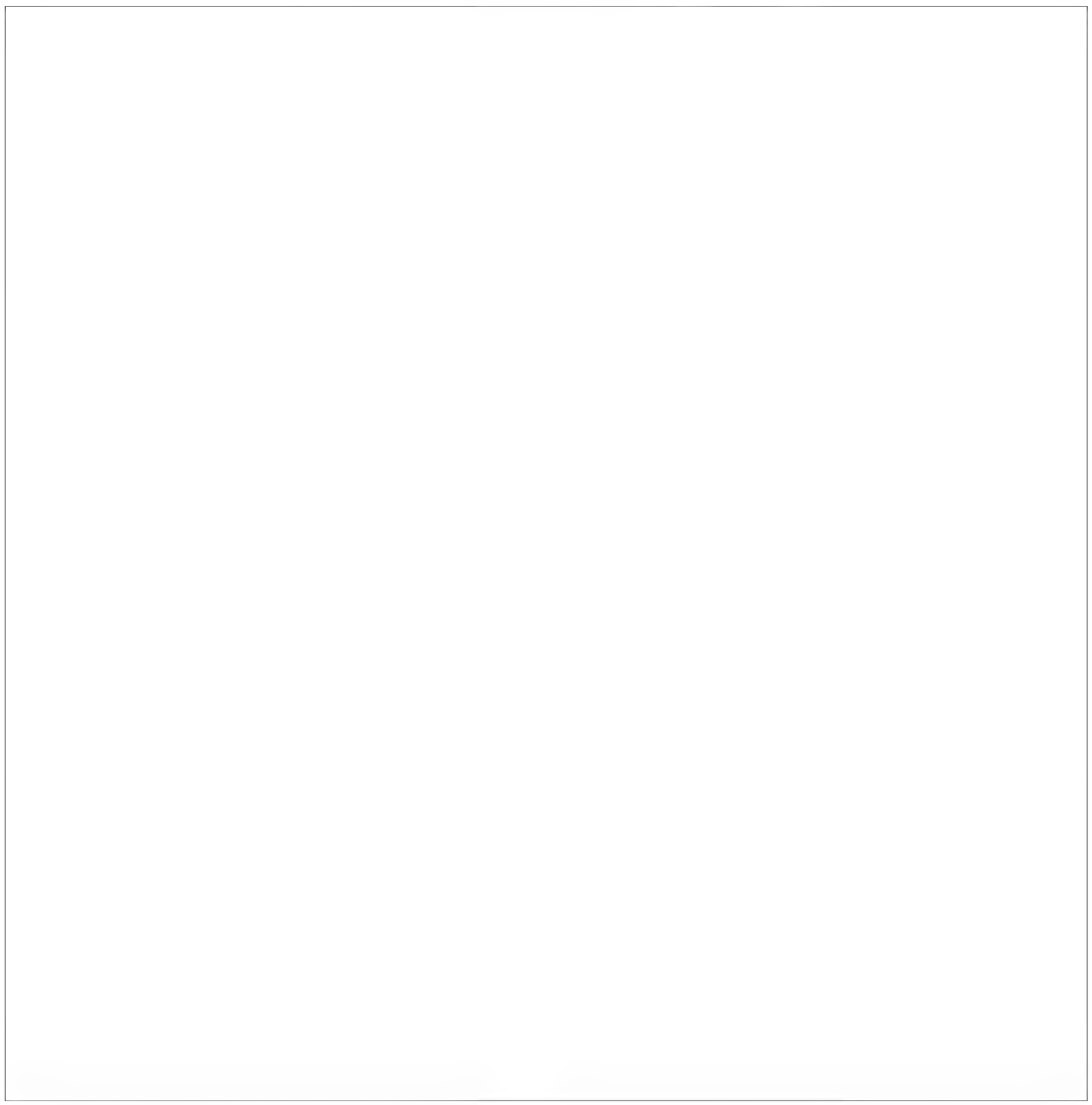
42. A tower-mounted TWIN EAR antenna was observed next to the Gresk SS-20 Payload Handling Facility. Gresk is currently the only SS-20 regiment-level facility, as well as the with a tower-mounted TWIN EAR. Construction on the tower and the associated control building began in early February. Tower-mounted TWIN EAR antennas were previously seen only at division-level SS-20 C3 facilities. The reason for a tower-mounted TWIN EAR antenna at the Gresk SS-20 regiment has not been determined. (S/WN)

Romny Division

43. **Romny.** C3 upgrading continued at the Romny MR/IRBM Division Command Post/Bunker (see Mobile Missile Summary 23). a Type E satellite communications station adjacent to the control bunker was in the late stages of construction. Also, a modified hardened dome antenna was in the midstage of construction next to the control bunker (Figure 12). The modified hardened dome antenna is a Phase II hardened antenna believed to be used for communicating with an airborne command post. Until October 1983, these antennas were only at ICBM launch sites and launch control facilities. Since then, however, modified hardened dome antennas have been under construction at four ICBM division command posts and the Lutsk MR/IRBM Division Command Post (see paragraph 48). The recent construction of modified hardened dome antennas at both IRBM and ICBM division command posts indicates increasing deployment of this antenna and a possible increased airborne command post function within the SRF. (S/WN)

44. **Krolevets.** two helipads were under construction in an open field approximately 300 meters north of Mobile IRBM Base 1. Concrete paving blocks were in the center of two square graded areas. (S/WN)

45. Mobile IRBM Base 2 was nearly externally complete during this reporting period. all nine single-bay garages and the three four-bay garages appeared to be complete; however, the road network within the operations area was not yet paved. The C3 area was in a late



stage of construction. The three-story C3 building was complete, and the roof of the associated 11-bay garage was being tarred. One lattice mast antenna had been erected adjacent to the C3 building, and a single-story, flat-roofed building had been added to the motor pool section of the support area. Construction has advanced further and faster at this base than at any other base currently under construction. As a result, it seems likely that this will be the next base to achieve operational status. (S/WN)

46. **Akhtyrka.** Steady progress has been observed at Akhtyrka Mobile IRBM Bases 1 and 2, the fourth and fifth bases in the Romny Division. As of the number of single-bay garages at Mobile Base 1 remained at seven, unchanged from the last reporting period. However, all three four-bay garages were in late stages of construction, with the roof of one of these buildings almost completely tarred. Similarly, the C3 building and its associated 11-bay garage were in late stages of construction in the old propellant storage area. (S/WN)

47. At Mobile IRBM Base 2 all nine single-bay garages had been erected. One of the four-bay garages was externally complete, one had a partially tarred roof, and the third had only two-thirds of its roof panels in place. The security building used to control access to the operations area was complete, and construction in the propellant area had progressed to the point where this area could now be confirmed as the new C3 area. Construction there consisted of a three-story C3 building and an 11-bay garage, both in late stages of construction. (S/WN)

•

Lutsk Division

48. **Lutsk.** Additional C3 upgrading occurred at the Lutsk IR/MRBM Division Command Post Bunker during this reporting period. three 28-meter lattice towers, probably supporting STICK PIN antennas, were near the control bunker, and a 2-2-2 FISHBONE antenna was in the

late stages of construction northeast of the bunker. Also, a probable five-element antenna array had been constructed on the northwestern corner of the bunker, and a modified hardened dome antenna was in the midstage of construction next to the bunker. (S/WN)

49. **Sokal.** the 52nd mobile IRBM base was identified in an early stage of construction at Sokal SSM Launch Position 3, a former SS-4 launch site. Construction continued at this base, designated Sokal Mobile IRBM Base 1 (previously reported in the Late Developments section in Mobile Missile Summary Report 24). , footings for one four-bay garage were visible in the former launch area of this deactivated SS-4 base. Also, trees had been cleared in areas large enough to accommodate two additional four-bay garages and two single-bay garages. (S/WN)

50. **Ostrog.** Construction has continued since the initial identification of Ostrog as a mobile base Construction was still in the early stages, with foundations present for one multibay and two four-bay garages. three single-bay garage foundations had been added. (S/WN)

51. **Brody.** the 51st mobile IRBM base was identified in the midstage of construction at Brody MRBM Launch Site 3, a former SS-4 silo launch site. This base is the first SS-20 base to be constructed at a deactivated hard SSM launch site in the western USSR. The new base, designated Brody Mobile IRBM Base 1, was previously reported in the Late Developments section in Mobile Missile Summary Report 24. construction consisted of six single-bay garages, two five-bay garages, one multibay garage, and a probable C3 building. Five-bay garages have never before been constructed in the operations area of a mobile IRBM base in the western USSR; they have previously been confined to the operations areas of scratch-built bases in the east. Their presence at Brody may be due to the fact that SS-4 hard sites do not have the missile-ready bunkers which are present at SS-4 soft sites, and consequently, extra garage space for missile support vans (MSVs) is needed. (S/WN)

Western USSR/Smolensk Army

Postavy Division

52. **Postavy.** An SS-20-associated C3 exercise consisting of 11 camouflaged SS-20-associated vehicles was observed in a wooded area southeast of Postavy Mobile IRBM Base 1 A FINE PAIR antenna (proposed name) was mounted on one of the nine MSVs involved in the exercise. This is the first sighting of the FINE PAIR at this facility. (S/WN)

53. The FINE PAIR antenna system consists of two 2.0-meter-diameter screens/dishes on a lattice tower, mounted on an MSV (Figure 13). This antenna is probably for radio-relay and has only been observed with SS-20 field training C3 exercises, The FINE PAIR antenna was first observed at Novosibirsk when it was identified as a TWIN EAR B

Table 4.
FINE PAIR Summary

Location
WESTERN USSR
Krolevets SSM Complex
Postavy Mobile IRBM Base
EASTERN USSR
Novosibirsk FTA 011
Novosibirsk FTA/R 001
Novosibirsk FTA 20
Drovyanaya SSM Complex

This table is SECRET/WNINTEL.

25X1
25X1
25X1

Lida Division

54. **Ruzhany.*** , the operations area of Ruzhany Mobile IRBM Base 1 contained foundations for eight single-bay garages in addition to the footings for three four-bay garages. These four-bay garages had progressed to the midstage of construction, with walls and some roof panels already installed. A foundation for a C3 building was added to the area that contained footings for an 11-bay garage. New vents had been installed on the former SS-4 missile-ready bunkers. (S/WN)

25X1

55. **Pruzhany.*** The 50th SS-20 mobile IRBM base was identified at Pruzhany Launch Site 1 on and designated Pruzhany Mobile IRBM Base 1. the foundation for a security building was in place outside the operations area that contained foundations for four single-bay garages and two four-bay garages (Figure 14). Additional clearings and construction material were also in this area. As at other recent SS-20 bases being constructed at deactivated SS-4 sites, the former propellant storage area has apparently been selected as the location for the new C3 area. Footings for an 11-bay garage and a probable C3 building were present. (S/WN)

56. **Lida.** , construction was nearly complete on the Type E satellite communications station at the Lida IRBM Division Command Post/Bunker. The two parabolic dish antennas have been installed, indicating that this station is or will soon be operational (Figure 15). (S/WN)

Central USSR/Vladimir SRF Army

25X1
25X1

Yurya Division

57. **Yurya.** The Yurya Division is probably undergoing conversion to another missile system. Possibilities include the SS-20 follow-on IRBM or the SS-X-25 ICBM. The nine single-bay garages at Yurya Mobile IRBM Base 3, an operational SS-20 base since December 1980, have been dismantled. First signs of dismantlement were observed when two garages were completely dismantled and two were partially dismantled. Four days later, dismantlement of a fifth single bay garage began. Initially, the disassembled garage components were stacked by the foundations and were not removed from the operations area. However, one set of single-bay garage components had been removed. all nine garages were dismantled, and the components for four of these had been removed from the operations area (Figure 16). The final disposition of these components has not been determined. None of the three three-bay garages has been dismantled. (S/WN/

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25X1

58. The purpose of this dismantlement has not been determined. Because of the construction of Mobile Base 6 with type C SS-X-25-associated single-bay garages and because of the fact that only the single-bay garages are being disassembled, these SS-20-associated single-bay garages may be converted to the longer SS-X-25-associated garages, making this a second probable support base for the SS-X-25 in the Yurya Division. If this is

*These regiments were previously reported under Pruzhany Division. (S/WN)

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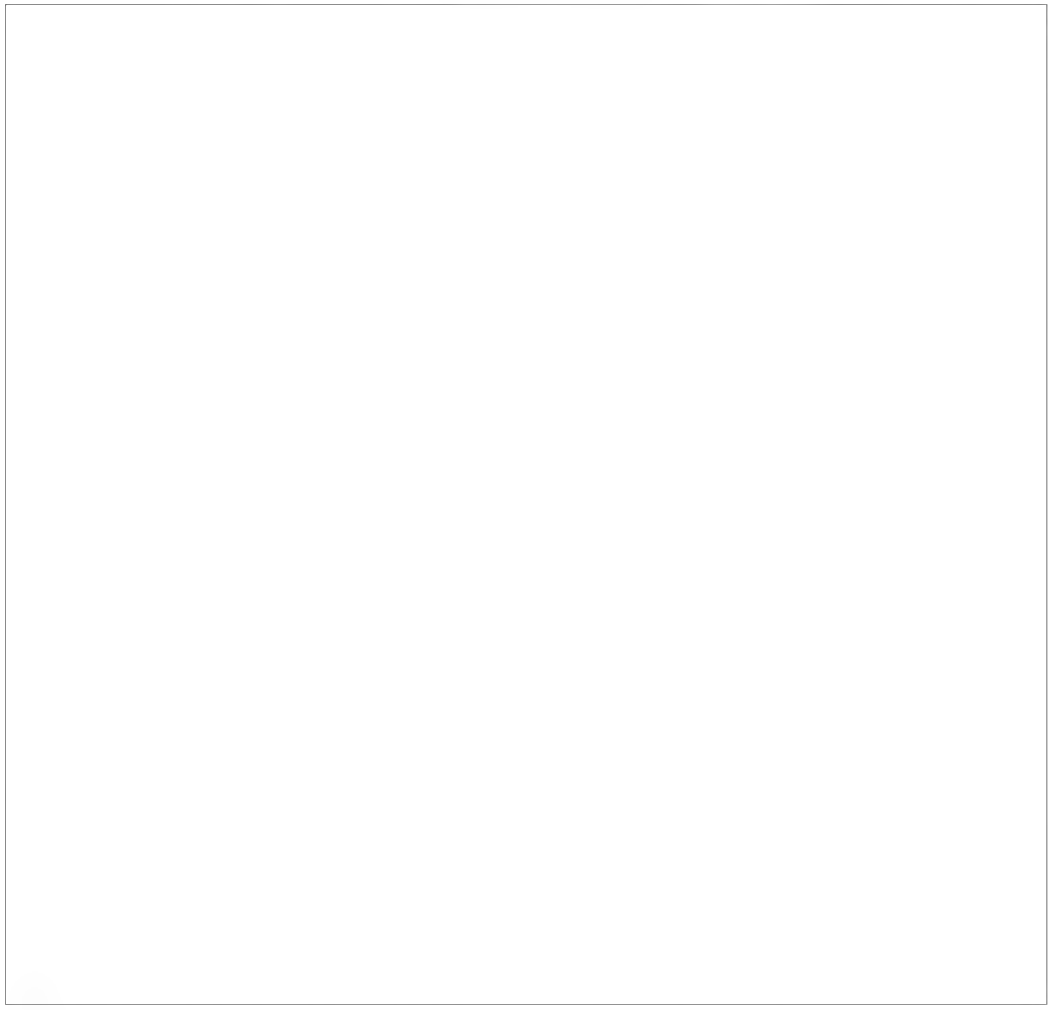

confirmed, it is expected that the remaining four SS-20 bases at Yurya will also be converted. (S/WN

59. Dismantlement of the single-bay garages was preceded by removal of appendages between Whether this removal may be used as an indicator of single-bay garage dismantlement is uncertain. Although the appendages were removed from one single-bay garage at Yurya Mobile IRBM Base 2 garage dismantlement has not yet followed. Similarly, although the appendages were removed from the single-bay garages at Yurya Mobile IRBM Base 1 between January and August 1984, the garages are still intact. Appendages at Yurya Mobile IRBM Base 4 have been absent from all but one single-bay garage since January 1984. Before appendage removal is determined to be an indicator of garage dismantlement and base conversion, activity at two additional SS-20 complexes, Novosibirsk and Verkhnyaya Salda, should be closely analyzed. Appendages have been removed from single-bay garages at the bases with appendages at Novosibirsk since September 1984 and at Verkhnyaya Salda since January 1983. But, unlike Yurya, no further dismantlement was observed at either Verkhnyaya Salda or Novosibirsk. (S/WN

Eastern USSR/Chita SRF Army

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Kansk Division

60. **Kansk.** a new scratch-built SS-20 base was discovered in the midstage of construction. Designated Kansk Mobile IRBM Base 3, it is the 54th mobile IRBM base identified in the Soviet Union and the third in the Kansk Division. This base, initially reported on in the Late Developments section of Mobile Missile Summary Report 24, consists of an operations area with nine single-bay garage foundations and three five-bay garages in a mid-to-late stage of construction; a C3 area with a multistory C3 building and a ten-bay garage; and a general support area containing two multistory buildings, one multibay garage, a single-story administration building, and a steam-plant. This location had previously been monitored as a possible SS-20 construction site. Tree

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clearing for the base road network had begun and actual base construction probably started in early 1984. The base is approximately 15 nm east-southeast of the Kansk SS-20 Support Complex. (S/WN)

61. A regimental complement of SS-20 missile support equipment (nine probable TELs and 20 canvas-covered probable MSVs) was observed This equipment was probably destined for Kansk Mobile IRBM Base 2. approximately ten SS-20-associated vehicles were loaded on railcars in the RTP, suggesting that additional vehicles had arrived at Kansk.

62. two canvas-covered probable SS-20-associated vehicles were in the operations area of Kansk Mobile IRBM Base 2. The next day, an SS-20 TEL with a training canister was near the entrance to the operations area. These equipment sightings and the apparent completion of all necessary construction in the operations and C3 areas suggest that this base will soon become operational. (S/WN)

63. the Kansk Division Headquarters was in the late stages of construction. It consisted of a C3 building with a roof-top antenna array and three lattice towers. The roof-top antenna array was similar to the array on the C3 building at the Barnaul IRBM Division Headquarters. (S/WN)

Drovyanaya Division

64. **Drovyanaya.** an expended SS-20 canister was under netting in the operations area of Mobile IRBM Base 4. three additional expended SS-20 canisters were in the operations area of Mobile IRBM Base 1. Expended canisters are often used in the construction of SS-20 mockups. These canisters are probably from the SS-20 exercise described in the field training section of this report (see paragraph 72). (S/WN)

65. **Drovyanaya Remote Site.** Site dismantlement was first noted when the roof sections of two of the three single-bay garages were removed and the solid fence surrounding the facility was disassembled. all three garages had been completely disassembled and the single-bay garage components removed. Only two open-sided sheds remained. Since its identification in August 1979, this site has never been assessed to be operational nor has its function been confirmed. (S/WN)

66. **Drovyanaya ICBM/IRBM Complex Command Post Bunker.** a large excavation had been dug into the side of the control bunker. No further activity associated with this excavation has been observed. Additionally, 12 communication vehicles were lined up along the access road preparing to depart the facility. On the vehicles were not present and may have been field deployed. (S/WN)

67. a mobile TWIN EAR antenna was observed in an operational mode 1,000 meters north of Drovyanaya ICBM Headquarters Radio Communications Receiver Bunker. The TWIN EAR antenna was previously observed in the same location It could not be determined if the TWIN EAR was participating in a field training exercise. (S/WN)

Eastern USSR/Omsk Army

Barnaul Division

68. **Barnaul.** a fifth mobile base was identified in the Barnaul Division, bringing the number of SS-20 bases in the Soviet Union to 53. The new base, designated Barnaul Mobile IRBM Base 5, was in the midstage of construction when identified. work had advanced to the point where six single-bay garages were externally complete, and a seventh was in the late stages of construction. Foundations for the remaining two single-bay garages were present. All three of the five-bay garages were nearly complete, and the internal road network was partially paved. The C3 area contained a multistory C3 building and its associated multibay garage. (S/WN)

69. The priority for base completion within this division has apparently shifted to Mobile IRBM Base 5. While construction progressed rapidly at Mobile IRBM Base 5, work appeared to

have halted at Mobile IRBM Base 4 and its Although single-bay garage foundations were never observed at this base, footings for three four-bay garages and for the three component structures of a nuclear payload handling facility (a clerestory building, a high two-bay building, and a technical support building) were identified. , tents had been removed from the temporary support area. only one tent remained, and a temporary barracks had been dismantled. This change of base construction priorities within a division is not unprecedented. A similar occurrence was noted in the Drovyanaya Complex in 1979. A construction hiatus of eight months occurred at Mobile IRBM Base 4, apparently in favor of Mobile IRBM Base 5. When Mobile IRBM Base 5 was nearly complete, construction resumed at Mobile IRBM Base 4. (S/WN)

Novosibirsk Division

70. **Novosibirsk,** the Type C satellite communications station at Novosibirsk IRBM Headquarters Radio Communications Transmitter was in the final stages of construction. The building was complete, but no antennas were on the antenna pedestals. (S/WN)

Field Training

71. Deployment of mobile missile units to 11 FTAs in three division areas (Table 5) was observed during this reporting period. Most of the exercises were elements of the divisional exercise that began during the previous reporting period (see Mobile Missile Summary Report 24) and concluded in mid-July. Four launches of SS-20 missiles took place in the Drovyanaya Complex in September. No field training exercises were observed in conjunction with the launches. (S/WN)

72. **Drovyanaya.** A division-level field training exercise in the Drovyanaya Complex that began in mid-June was completed in July. A C3 relay unit associated with the FTX, deployed the first identified FINE PAIR (proposed name) troposcatter relay unit at 51-32-10N 113-00-03E. An MSV and five support vehicles were deployed with it. In September, four missiles were launched from the Drovyanaya area: the first on 2 September with a reentry location at Novaya Zemyla; the second and third on 6 September, 15 minutes apart, impacting at Novaya Zemyla and Kamchatka respectively; and the fourth on 10 September, with reentry also in Novaya Zemyla

Testing and Development

Kapustin Yar MSTC

73. Activity in support of the SS-20 crew training program at Kapustin Yar MSTC (Figure 18) continued throughout the reporting period. The flight test program of a probable follow-on to the SS-20 began, a new-type, TEL was identified at Kapustin Yar General Support Area. mobile missile prelaunch activity was identified at the new launch test position at Kapustin Yar MR Test Complex C Site 1. On 27 September, DEFSMAC reported the launch of a probable follow-on to the SS-20, interim designator KY-15 (Table 6), from Kapustin Yar [TS a new-type mobile missile canister dolly was identified at the rangehead. (TS

Table 6.
KY-15 Launch Summary

Launch Date*	Launch Site (mode)**	Remarks*
27 Sep 84	Prob KY 1C (TEL)***	Success

***Although prelaunch activity was observed, no direct evidence of the launch (burnmarks, blast effects, or selfeject launch technique [SELT] rings) was identified

This table is TOP SECRET

74. **Activity in Support of SS-20 Flight Testing/Crew Training.** Activity in support of SS-20 crew training was observed throughout the reporting period. Based on the number, frequency, and locations of SS-20 regiments observed at the rangehead in 1984, it is likely that at least two SS-20 regiments are cycled through the rangehead each month. During the reporting period, DEFSMAC reported SS-20 launches on 20 July and on 4 and 31 August

75. A battalion-sized SS-20 unit was at Kapustin Yar Mobile IRBM Crew Training Area (CTA) 1 and regimental-sized SS-20 units were at Kapustin Yar Mobile IRBM CTA 5 during July and September. One SS-20 battalion and occasionally elements of a second were observed in the battalion-sized operational training area at Kapustin Yar MR/IRBM Bivouac/Troop Training Area during July, August, and September. As many as four SS-20 TELs with training canisters and three TEL chassis have also been observed on the driver-training course west of the Bivouac/Troop Training Area at the same time that other SS-20 crew training was in progress. One SS-20 regiment and occasionally elements of a second regiment were in temporary storage or transit at Kapustin Yar Missile Receiving/Inspection/Storage Area during each month of the reporting period. SS-20 regimental-sized field training exercises have been observed nearly monthly in 1984 at the same time that at least one SS-20 regiment was in transit or temporary storage in the Receiving/Inspection/Storage Area. This suggests that at least two and possibly three SS-20 regiments have been at and cycled through the rangehead per month in 1984. Although some of this activity probably is in support of crew training for regiments to be deployed at new bases, it is likely that the majority of the regiments observed at Kapustin Yar in areas historically associated with the SS-20 are from deployed complexes and are participating in cyclical training. (S/WN)

76. Additional SS-20 C3 activity has been identified at the rangehead. Since August 1979, during periods when an SS-20 regiment is at the

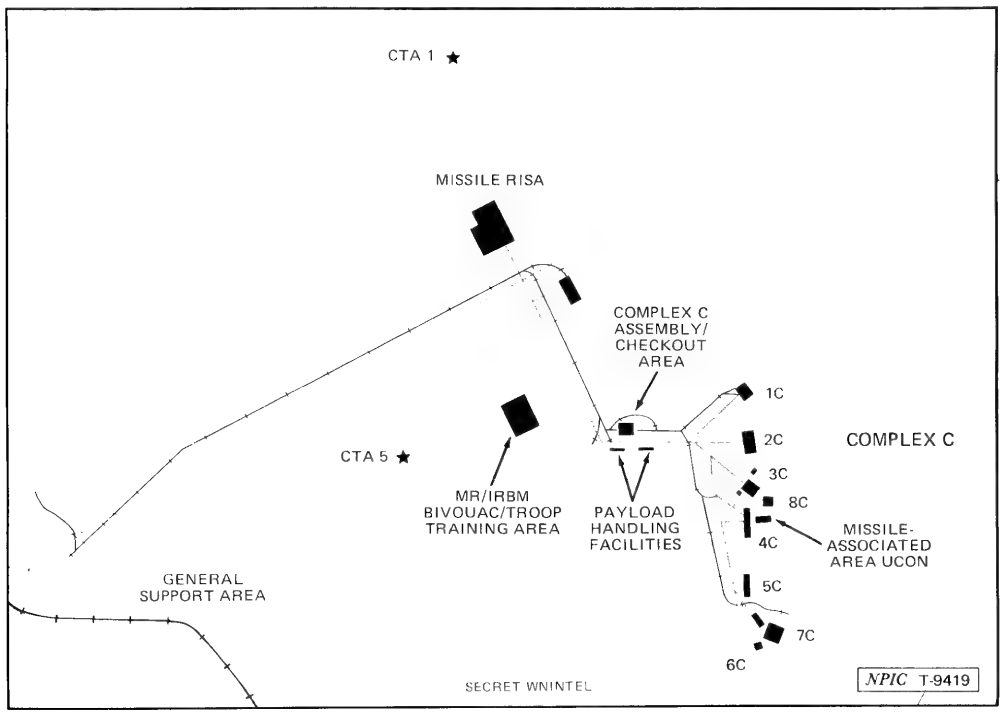

FIGURE 18. KAPUSTIN YAR COMPLEX C AND ASSOCIATED SUPPORT FACILITIES

rangehead for training, a regimental C3 unit has been cable connected directly to two tower-mounted, separately secured, STICK PIN antennas at the Receiving/Inspection/Storage Area. At the same time, a second regimental C3 unit has been in the field with the launch battalions. The use of two regimental C3 units with one SS-20 regiment and the direct cable connection of missile support vehicles to STICK PIN antennas are unusual and have not been observed at deployed SS-20 complexes. It is also unusual that the STICK PIN antennas were installed in the Receiving/Inspection/Storage Area, a missile/equipment transloading and temporary storage facility. STICK PIN antennas are installed at SS-20 regiment and division C3 facilities and are for UHF/VHF communications within a complex. The STICK PIN antennas at the Receiving/Inspection/Storage Area were installed between January and March 1979 and separately secured by August 1979. (S/WN)

77. The most recent occurrence of this type of C3 activity at Kapustin Yar an SS-20 regimental-sized unit consisting of two launch battalions (each with two TELs) and a C3 unit were training at Kapustin Yar Mobile IRBM CTA 5. On another C3 unit was in the Receiving/Inspection/Storage Area. The latter C3 unit at the Receiving/Inspection/Storage Area consisted of five MAZ-type MSVs and at least two unidentified vehicles. Antenna masts were discernible on three of the MSVs. An antenna mast was at both ends of one vehicle, and a possible dish antenna was observed on one MSV. (S/WN)

78. **Activity in Support of a Follow-on to the SS-20.** (In previous Mobile Missile Summary Reports, this section was titled "Activity in Support of a New IRBM System.") Preparations for the flight test program of a probable follow-on to the SS-20, which has an interim designator of KY-15, was identified during the reporting period. a new-type, TEL, probably for the KY-15, was identified at Kapustin Yar General Support Area. probable KY-15 prelaunch activity was identified at the new launch test position at Kapustin Yar MR Test Complex C Site 1. DEFSMAC reported the launch of a KY-15 from Kapustin Yar , a new-type mobile missile canister dolly was identified at the rangehead. (TS

79. At Kapustin Yar MR Test Complex C Site 1, probable KY-15 prelaunch activity was under way . On both days, three mobile missile-associated vehicles—the easternmost was a probable MSV—were cable connected on the major east-west road in the new launch test position at the north end of the site. This new launch test position will be reported as launch position (LP) 1C-4. vehicle was under each of the two 18-meter-long, open-sided sheds at LP 1C-4. On 27 September, no vehicles were under the sheds, and

two unidentified-type vehicles (one with a probable antenna mast) were set up just east of the site entrance. Except for the MSV identified

DEFSMAC reported the launch of a KY-15 from the rangehead. It has been assessed that the KY-15 consists of the first two stages of the SS-X-25 with a different postboost vehicle and a MIRV payload. (TS

80. no camouflaged vehicles or equipment and no evidence of the launch were identified at Site 1. However, because of the identification of activity at LP 1C-4 just prior to the launch, it is likely that the KY-15 was launched from this new launch test position. an additional mobile missile canister was identified in the expended canister open storage area at LP 1C-2. This canister ; however, it did not appear to have a domed endcap attached. Therefore, although this canister appeared to be shorter than the complete SS-20 canisters in this area, it could not be determined if the new canister was a complete canister or only part of a canister. Some of the SS-20 canisters in this area have been cut up or have had a section or sections removed. (TS

81. Also at Site 1, construction of the second probable single-bay garage in the southwest section of LP 1C-4 continued at a very slow pace. It should be noted that this second single-bay garage has a foundation different from the first type A/B garage in this area. The second garage at LP 1C-4 has a foundation consisting of two rows of about 11 footings, which are similar to the footings of the type B single-bay garage at LP 1C-3 at this site and the foundation and crossmembers observed on an apron at Novaya Mezinovka Missile Support Rear Depot in 1980. The foundation of the first single-bay garage was built using construction techniques and footings that appeared to be identical to those used to construct the type C (SS-X-25-associated) single-bay garages at Plesetsk, Yoshkar-Ola, and Yurya. It is important to note that there is no basic external difference in the appearance or capabilities of these single-bay garages constructed with the 11-footing foundations. (S/WN

82. At Kapustin Yar MR Test Complex C Site 8, a rail-mounted shed was constructed at LP 8C-2 during August and September. This shed is identical to the one constructed at LP 8C-1. In addition, during August, a cable trench was excavated from the north subsurface building at LP 8C-1 to a small excavation just east of the site. Unidentified probable construction materials were near the small excavation. The purpose of this new activity has not been determined but may be electronics related. This site is externally complete and probably is capable of supporting the flight test program of a new mobile missile system. (S/WN)

83. At the new missile-associated area east of Kapustin Yar MR Test Complex C Site 4C1, construction continued at a slow pace. Most construction appeared to be nearly externally complete by the end of the reporting period. The function of this area still has not been determined. (S/WN)

84. **Kapustin Yar Support Areas.** Transshipment of elements of at least four probable SS-20 regiments were observed in the Kapustin Yar Missile Receiving/Inspection/Storage Area during the reporting period. In addition, an SS-20 regimental C3 unit was frequently observed set up and cable connected to the two separately secured STICK PIN antennas at the facility. Construction of the new possible mobile missile-associated nuclear payload handling facility in the Receiving/Inspection/Storage Area continued at an extremely slow pace. (S/WN)

85. At Kapustin Yar General Support Area, activity probably in support of SS-20 crew training and the flight test program of the KY-15 was identified. In general, activity levels—vehicle arrivals, training exercises, and the frequent observation of large personnel formations—have significantly increased in the General Support Area over the last several months. Significant equipment and activity identified during the reporting period included a new-type TEL and a new-type canister dolly, both probably for the KY-15, and increased levels of driver training, with standard SS-20 TELs on the paved driver-training course north of the facility. (TS

86. a new-type TEL was identified in the east missile/payload handling area of the facility. The vehicle is based on a six-axle MAZ-type chassis On all acquired images, this vehicle has carried a canvas-covered load simulator. The standard SS-20 TEL is The cab configuration of the new TEL is also different from that of the SS-20 TEL. Although the left cab extends to the front of the vehicle, the right cab is slightly recessed and is not contiguous with the left side of the vehicle.

Although the cab configuration is different, the wheel spacing and overall length of this vehicle are compatible with the six-axle MAZ-chassis observed on the Minsk ring road in August 1981. Based on the timing of the identification of this new-type TEL at Kapustin Yar and at the production facility, it probably will be used for the KY-15 and also may be used for the SS-X-25 mobile ICBM. (TS

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87. a new-type mobile missile canister dolly was identified in the original missile/payload handling area. Two of these dollies were east of the missile/payload receiving and checkout building, and both were covered with canvas (Figure 21).

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In addition, the ends of the new-type dolly are distinctly different from the SS-20 dolly. The ends of the new dollies have a tablike appearance instead of a rectangular appearance. Because of the timing of their identification at the rangehead, these dollies also probably are for the KY-15. (TS

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88. Facilities constructed since 1978 at the General Support Area and probably in support of the KY-15 include a new training/administration area, a new vehicle storage and maintenance area, the east and west missile/payload handling areas, a paved driver-training course, a rail-served missile/payload transloading area, and a rail-to-road transloading area. Most of the buildings and structures at these facilities are complete, although some were in the late stages of construction. Except for the rail-served missile/payload transloading area, all the new facilities are being used. (T

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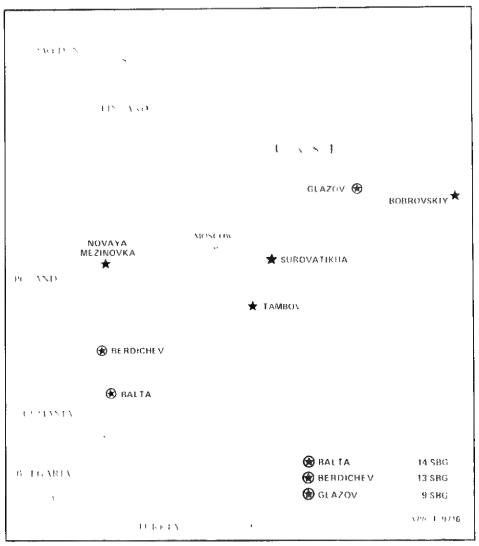

FIGURE 22. SOVIET MISSILE SUPPORT REAR DEPOTS

Production

Single-Bay Garage Component Production and Stockpiling

90. Single-bay garage components continued to be fabricated and stockpiled at Bryansk Guided Missile Equipment Plant II. Garage components also continued to be stockpiled at at least three of the seven (Figure 22) missile support rear depots (MSRDs). Components for at least 36 single-bay garages were delivered to the field from July through September: nine each to Akhtyrka Mobile IRBM Base 1, Akhtyrka Mobile IRBM Base 2, Barnaul Mobile IRBM Base 5, and Yoshkar-Ola Mobile Base 1. By the end of September, enough components for the construction of at least 40 single-bay garages remained stockpiled at Bryansk and the MSRDs. Counts of single-bay garages stockpiled at the MSRDs and in the transshipment yards at Bryansk from July through September are listed in Table 7. (S/WN)

91. **Bryansk Guided Missile Support Equipment Plant II.** components for at least four single-bay garages were stockpiled at Bryansk. Coverage was insufficient (the only coverage obtained was during the period to determine if any change in production rates occurred. Based on the analysis of the previous 12 months, the production rate is estimated to be approximately 4.5 to five single-bay garages a month. The apparent low number of components shipped to the MSRDs (only components for at least four single-bay garages to Berdichev) suggests that the components produced at Bryansk probably went directly to the field rather than to the MSRDs. If production rates remained consistent with the previous 12 months, components for approximately 15 SBGs would have been shipped from Bryansk from July through September. (S/WN)

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Missile Support Rear Depots

92. Mobile missile vehicle transshipment activity was observed at Bobrovskiy MSRD, and single-bay garage components continued to be stockpiled at the Balta, Berdichev, and Glazov MSRDs, but not at Surovatikha. Components for at least 19 garages were shipped from three of the depots. Enough components remain stockpiled at the depots to construct at least 36 additional garages (Table 7). (S/WN)

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93. **Bobrovskiy.** Mobile missile vehicle transshipment activity was in progress at Bobrovskiy MSRD. This was the first sighting of SS-20 launch-associated vehicles at the depot. MSVs and two canvas-covered possible MSVs were on flatbed railcars at a drive-on ramp near the main airframe storage area. Neither the vehicles nor the railcars were present when this area was next imaged a second shipment of mobile missile-associated vehicles was in the same area. A canvas-covered SS-20 TEL and eight canvas-covered MSVs were on flatbed railcars. Bobrovskiy has probably been a storage facility for the SS-20 IRBM system since at least 1976, when probable SS-20 missile dollies were first identified at the facility. (S/WN)

94. It could not be determined whether the vehicles were departing or arriving at the depot. If the vehicles were being shipped from the depot, they were probably being sent to one of the three nearly complete mobile missile bases. There is ample garage space at Bobrovskiy to store several regiments of SS-20 equipment. Production of SS-20 vehicles probably continued in 1982 and 1983, when no new SS-20 bases were started in the western USSR. Bobrovskiy would be a likely place for storage of this equipment. If the equipment was arriving at the depot, it is most likely coming from a production plant for storage until being shipped to an operational base. Alternatively, these vehicles could have come from the Yurya SSM Complex. SS-20 vehicles had been removed from Yurya Mobile Base 3 and loaded on railcars at the Yurya Rail-to-Road Transfer Point

95. **Balta.** Coverage of Balta MSRD revealed that three single-bay garages were shipped from the facility Components for at least one additional garage were shipped leaving components for 14 garages stockpiled at the depot when

96. **Berdichev.** enough components for at least 13 garages (an increase of four were in the storage and maintenance area of Berdichev MSRD. (S/WN)

97. **Glazov.** Components for three single-bay garages were shipped from Glazov during the period. The remaining components for nine single-bay garages were consolidated into a new position to decrease the amount of space that they took up on the receiving apron. They continued to be covered with canvas. No new single-bay garage components were delivered to Glazov. (S/WN)

98. **Surovatikha.** All single-bay garage components stockpiled at Surovatikha were shipped from the depot, and no new garage components arrived during the period. Components for 12 garages were shipped three at a time

Missile Support Equipment Production and Testing Facilities

99. **Volgograd.** The Volgograd Steel and Machinery Plant Krasnyy Barricada 221 will be the assembly facility for the new 16.9-meter TEL identified at the Kapustin Yar General Support Area. Two MAZ six-axle chassis for the new TEL were in the missile support equipment area of the plant Three canvas-covered chassis for the SS-20 were also present. Volgograd 221 assembles mobile-missile support equipment for several systems including the TEL for the SS-20, SS-21, and SS-23. TEL chassis are shipped to Volgograd from Minsk Motor Vehicle and Guided Missile Support Equipment Plant. A chassis was first seen at Minsk in March 1982, although no association to a specific missile system could be determined at that time. The presence of three SS-20 TEL chassis at Volgograd 221 may indicate a slight increase in the production of SS-20 TELs over the last reporting period, when the number of MAZ six-axle chassis present never exceeded two at any one time. (S/WN)

100. The new TEL chassis may also be used for the SS-X-25 TEL. The presence of different imprints and the use of a type C single-bay garage at Plesetsk Launch Test Site 23, a test launch site for the SS-X-25, indicate that the chassis for the SS-X-25 TEL is longer than the chassis for the SS-20 TEL. (TSR)

101. The new construction and improvements to Volgograd Remote Test Facility 3, which tests missile support equipment produced at Volgograd 221, continued. The construction on Pad C consists of footings and posts for a 54-meter-long, drive-through shed and two 20- by 20-meter possible vehicle storage sheds. The drive-through shed and possible vehicle storage sheds will probably be used to house equipment being tested at the facility. The timing of their construction indicates the sheds are probably related to the TEL to be produced from the chassis at Volgograd 221. A narrow shed has been constructed along the side of the single-bay garage in the main support area. No test-related activity was seen. (S/WN)

102. **Remote Test Facility 1.** Testing of mobile missile-related equipment resumed at Test Facility 1 after a three-year hiatus. MSVs, three probable MAZ-543 chassis, and a probable BTR-60, all individually canvas covered, were at the facility (Figure 23).

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103. **Shumerlya.** The production increase in missile support vehicles that started in early 1984 at Shumerlya Missile Ground Support Equipment Plant continued. Also, the probable communications van version of the MSV was identified at the facility when two of the vehicles were seen near the large assembly building in the western part of the plant. This observation links Shumerlya with Moskva Tractor Plant Ismailovo as the only two known plants associated with the assembly of this version of the MSV. (S/WN)

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104. **Minsk.** The expansion program continued at Minsk Motor Vehicle and Guided Missile Support Equipment Plant. Construction continued on the large fabrication/assembly building, which is connected to the missile support equipment-associated area of the plant. The building will probably become operational in mid-to-late 1985. (S/WN)

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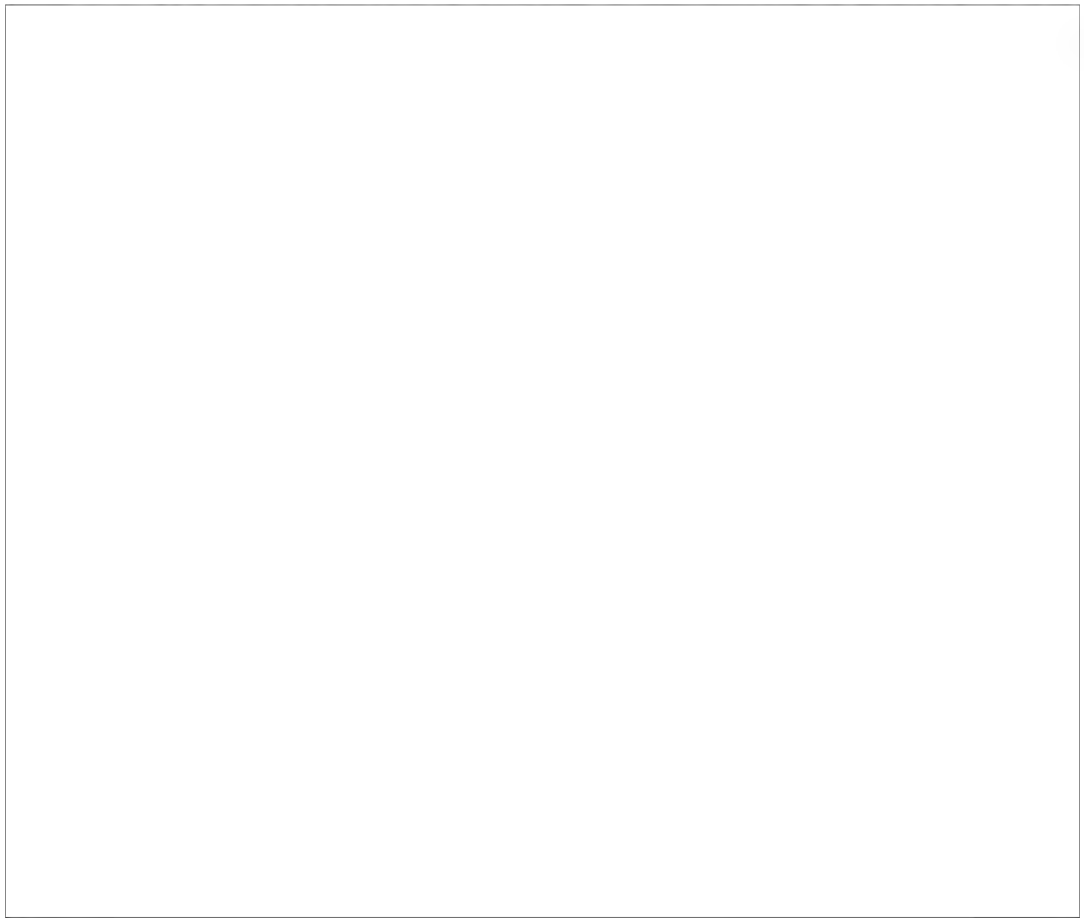

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Short-Range Ballistic Missile Activity

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SHORT-RANGE BALLISTIC MISSILE ACTIVITY

Introduction

105. This section of the report addresses the deployment, research and development, production, and logistics of Soviet short-range ballistic missile (SRBM) systems. It summarizes the status of SCALEBOARD (SS-12) deployment in Eastern Europe (Figure 24) and involvement in antitactical ballistic missile (ATBM) testing near Emba. Also discussed is the recent activity observed at the Kapustin Yar missile test range and status of SS-23 and SS-21s. An updated SRBM order of battle and a list of acronyms and abbreviations can be found in the appendix. (S/WN)

SCALEBOARD Activity

106. NPIC still assesses that three SCALEBOARD brigades are deployed in Eastern Europe,

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and another in Czechoslovakia. SCALEBOARD launchers were identified for the first time in late July and early August 1984 in two of the brigade areas. Two launchers were engaged in a field exercise in the Libava Training Area near facilities used by the brigade in Czechoslovakia

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107. Alert launch positions were identified in July for the SCALEBOARD brigade in Czechoslovakia. Three probable battalion positions are located in the Libava Training Area (Figure 24); each battalion position contains six launch pads corresponding to a three-battery organization, each battery with two launchers. These positions confirm the fact that the brigade has 18 launchers. The brigade probably redeployed from Yemilchino in the Carpathian MD. All the alert launch positions contain storage bunkers for nuclear warheads and missile airframes. NPIC believes that duty elements of SCALEBOARD brigades will be rotated at these alert launch positions, and that launch battalions and support elements of the brigades will routinely be kept in the identified garrison areas. A second garrison was identified in the Libava training area for the brigade in Czechoslovakia.

108. SCALEBOARD equipment at the Kabanbay-Lake Karashek area in the Turkestan MD since June 1984 had departed SCALEBOARD launches had been conducted in this area in support of ATBM tests at the Emba Missile Test Center. No significant SCALEBOARD activity was seen at Kapustin Yar during this reporting period. (S/WN)

SS-23 Activity

109. No unusual activity associated with the SS-23 was detected during this reporting period. The introduction of the SS-23 into operational units has still not been observed. (S/WN)

SS-21 Activity

110. An SS-21 battalion was in the Libava Training Area of Czechoslovakia This represents the first indication of SS-21 conversion under way in the ground forces divisions of the Soviet Central Group of Forces. No unusual SS-21 activity was observed at Kapustin Yar. (S/WN)

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Production

Petrokrepost

111. Construction continued on the new ingredients preparation and mix building in the north-central part of Petrokrepost Explosive and Solid Motor Production Plant. The building was still in the midstage of construction and probably will not be completed until mid-1985. Tree clearing was observed along the northwest edge of the double-base propellant production area, and grading was started in two previously cleared areas in the composite propellant production area. This construction has not advanced to a stage where its function can be determined. This plant currently produces the motors for the SS-12 and SS-12 Mod 2 SRBM.† (TSR)

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Petropavlovsk

112. Plant expansion continued in the northern part of Petropavlovsk Vehicle Assembly Plant. This expansion has been under way since late 1979 and will probably be complete, at the earliest, by late 1985. This facility is believed to be responsible for the manufacture of components and subassemblies of missiles, probably the SS-12 Mod 2, SS-21, and SS-23. The plant also assembles ground support equipment based on the MAZ-543 chassis.† (TSR)

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113. No major new construction or significant activity was observed at Petropavlovsk Missile Assembly Facility during this reporting period. This facility is reported to be responsible for the production of missile airframes and probably the final assembly of the SS-12 Mod 2 and SS-21 SRBMs.† (TSR)

†TSR information extracted from DIA, DDB-1923-4-82, *Foreign Missile Production Communist World (U)*, Jun 82, pp 12, 16 (TOP SECRET R

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Related Activity

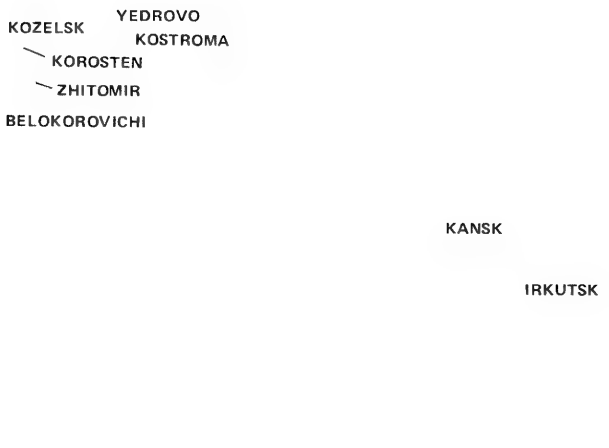

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FIGURE 26. LOCATIONS WITH POTENTIAL SOVIET MOBILE MISSILE ASSOCIATION

RELATED ACTIVITY

Introduction

114. This section of the report addresses selected unidentified construction projects which are believed to have a potential mobile missile association. These projects will be closely monitored, with the significant changes reported in this section until identified, after which they will be included in the appropriate section of this report or in other NPIC reports. A list of acronyms and abbreviations can be found in the appendix. (S/WN)

115. The projects in this section remained in a relatively early stage of construction. Four areas of interest at Korosten, Zhitomir, and Kansk have characteristics suggesting a mobile IRBM association, while six others at Irkutsk, Kostroma, Kozelsk and Yedrovo may have a mobile ICBM association (Figure 26). One facility at Yurya, Mobile Base 6, initially thought to have a mobile missile association, was confirmed as a mobile missile base probably for the SS-X-25 and is now discussed in the ICBM section of this report. (S/WN)

Korosten MRBM Launch Site 2

116. trees had been cleared in the former SS-4 launch area for two probable four-bay garages, four probable single-bay garages, and a perimeter security zone. A construction support camp was nearby. footings were present for a multibay garage and a possible security building. a security building and a regimental C3 facility, consisting of an 11-bay garage and a C3 building, were under construction. Construction of the single-bay and four-bay garages had not started. (S/WN)

Zhitomir MRBM Launch Site 2

117. an area between the site support facility had been cleared of trees. This type of clearing has been seen at other deactivated MRBM sites prior to SS-20 conversion, and usually a C3 facility is constructed in this area. (S/WN)

Kansk

118. Two new areas of activity, possibly for SS-20 bases, were observed. The first area, identified is approximately 9 nm south of Kansk Mobile IRBM Base 3. It consisted of extensive tree clearing and grading with a construction support camp of temporary barracks and tents also being established. Several pieces of construction equipment were present, and a swath for a powerline was being extended toward the site. A second area of interest, consisting only of tree clearing and grading, was also identified approximately 10 nm south of the first. (S/WN)

Irkutsk

Construction Site 1

119. Construction continued at a slow pace. a loop road had been graded within the operations area. foundations were present for four large rectangular buildings in the construction support camp. construction of one of these buildings had progressed to the midstage. This site remained in an early stage of construction with excavations for footings for one seven-bay garage and clearings for two other seven-bay garages in the operations area. (S/WN)

Construction Site 2

120. in the operations area, a loop road had been graded, two new linear areas had been cleared of trees, and stanchions had been placed in the footings of one of the seven-bay garages. Building materials and construction vehicles were near the three seven-bay garage foundations. The tree clearing around the perimeter of the operations area for security fences, started in March, had been completed. In the support area, two large trenches had been dug and construction was continuing on several buildings. stanchions and roof braces had been installed in one of the seven-bay garages. (S/WN)

121. The seven-bay garages being built at Construction Sites 1 and 2 appear identical to those seen at Yoshkar-Ola Mobile Missile Base and Yurya Mobile Missile Base 6. This type of garage has been identified only at mobile missile bases that are probably for the SS-X-25.

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Construction Site 3

122. The function of this area was still undetermined when it was last observed Construction was continuing on apartment buildings, barracks, and administration buildings, although no missile-associated buildings have been identified. No rail lines were present, and no extensive security was observed. (S/WN)

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Kostroma SSM Complex

123. At Kostroma, where 40 SS-17s and 50 SS-11s are deployed in silos, construction of the probable SS-X-24 missile receiving and checkout area continued. Construction of the probable SS-X-24 MRACA is concentrated in two general areas designated Area A and Area B. By August, a rail spur had been installed from the main rail line into Area A, and two large buildings and four small buildings were under construction. The large buildings were 48 by 25 meters and 88 by 19 meters. In Area B, footings for a large building measuring approximately 82 by 18 meters remained unchanged since April. (S/WN)

124. In the receiving area of the RTP, a probable rail transfer shed was under construction near the propellant handling facility. Two rows of six footings, measuring 32 by 10 meters, were observed adjacent to the oxidizer dispensing building. In addition, stays that could support canvas net material were being installed over approximately 500 meters of the rail line in the RTP. In the barracks area near the RTP, construction on three barracks and a messhall was completed. (S/WN)

125. When the missile receiving and checkout area and the probable rail transfer shed in the rail-to-road transfer point are completed, these facilities will probably be capable of supporting both the silo-based and rail-mobile deployment modes of the SS-X-24 ICBM. The SS-X-24 could be deployed in silos by 1985–1986 and in a more survivable rail-mobile mode by 1987–1988. As yet, no indications of a silo modification program or rail-mobile launch facilities have been identified at Kostroma. (S/WN)

Kozelsk SSM Complex

126. At Kozelsk, where 60 SS-19 and 50 SS-11 ICBMs are deployed, the construction of the new component storage area in the NWHF has remained virtually unchanged since March 1983. The purpose of this construction remains undetermined; however, the apparent low priority assigned by the Soviets to this project is not indicative of new system deployment. Only significant developments at Kozelsk will be included in subsequent reports. (S/WN)

Yedrovo SSM Complex

127. At Yedrovo, where 110 SS-17 ICBMs are deployed, probable SS-X-24-related construction continued on two buildings in the RTP. The large rail-in, high-bay building under construction is a probable SS-X-24 receiving, inspection, and checkout building. The high-bay portion of the building is rail served and measures 60 by 12 meters. The adjoining low-bay portion, 60 by 6 meters, will probably house technical support equipment for inspection and checkout. Footings for a second building, measuring 32 by 11 meters, are adjacent to the RIC building. This construction is probably related to silo deployment of the SS-X-24. The limited scale of construction tends to rule out deployment of the rail-mobile version of the SS-X-24, which apparently requires more extensive handling facilities such as those at Plesetsk and under construction at Kostroma. No indications of silo modification have been observed at Yedrovo. (S/WN)

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Appendix

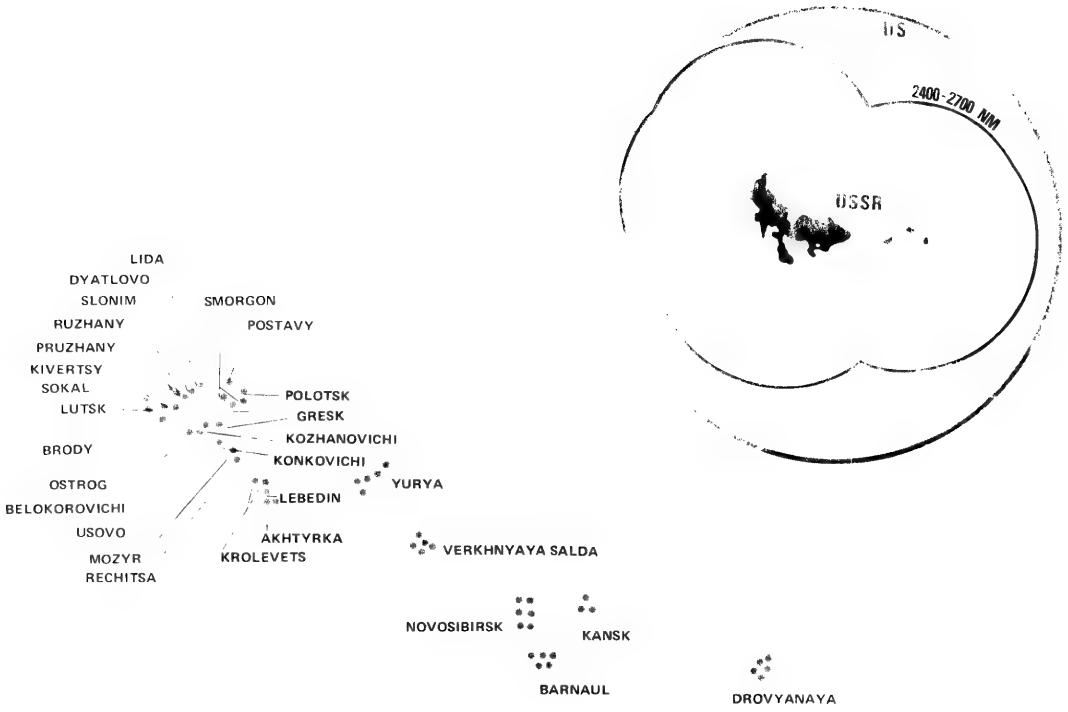

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FIGURE A1. LOCATIONS OF SS-20 MOBILE IRBM BASES.

APPENDIX

Introduction

A1. This section of the report contains the significant baseline information that NPIC considers most accurate and best suited for Soviet mobile missile analysis. Included are the basic operational characteristics of the weapon systems, dimensions of significant associated structures, abbreviations for standard terminology, and basic installation information, including an updated, imagery-derived order of battle for Soviet SRBMs. Also included are two tables that summarize construction and C3 activity at deployed SS-20 IRBM bases (Figure A1). Recommendations and comments regarding this section, as well as suggestions for items to be included in future appendixes, are welcome. (S/WN)

Acronyms and Abbreviations

AAD	azimuth alignment device
APRTB	army mobile rocket technical base
C3	command, control, and communications
can/cap	canister/capsule
cp/bnk	command post/bunker
CSF	complex support facilities
CTA	crew training area
DDTA	dispersal/driver training area
ERC	emergency rocket communications
ESF	East Support Facility
FPRTB	Front mobile rocket technical base
FTA	field training area
FTX	field training exercise
GSA	general support area
GSE	ground support equipment
INF	intermediate nuclear forces
IR	infrared
LAD	launch-assist device
LCF	launch control facility
LRCM	long-range cruise missile
LRP	launch reference position
LTF	launch test facility
LTS	launch test site
MD	military district
MHF	missile handling facility
MOB	mobile missile base
MRACA	missile receiving and checkout area
MRAC	missile receiving and checkout
MRB	missile-ready building/bunker
MSE	missile support equipment
MSRD	missile support rear depot
MSTC	missile/space test center
MSV	missile support van
MTC	missile test center
NPHF	nuclear payload handling facility
NWHF	nuclear warhead handling facility
NWSA	nuclear weapons storage area
ORPD	independent rocket transport battalion
PBV	postboost vehicle
PGCS	propulsion guidance control section
PHF	payload handling facility
PRTB	mobile rocket technical base
rail-TEL	rail-mobile transporter-erector-launcher
RIC	receiving, inspection, and checkout
RIM	receiving, inspection, and maintenance
RISA	receiving/inspection/storage area
RTB	rocket technical base
RTP	rail-to-road transfer point
SBG	single-bay garage
SMRA	silo materials receiving area
TEL	transporter-erector-launcher
T-L	transporter-loader
UHF/VHF	ultrahigh frequency/very high frequency

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Table A1. Summary of Construction at Deployed Mobile Missile Complexes

		SBG		MULTIBAY GARAGES		MULTIBAY SUPPORT GARAGES								CLERESTORY BUILDINGS		HIGH 2-BAY BUILDINGS		TECHNICAL SUPPORT BLDGS			
						9-BAY		10-BAY		11-BAY											
		COMP	UCON	BAYS	COMP	UCON	COMP	UCON	COMP	UCON	COMP	UCON	COMP	UCON	COMP	UCON	COMP	UCON	COMP	UCON	NPHF AT RTP
EASTERN USSR	**Chita SRF Army**																				
	DROVYANAYA																				
	Base 1	9	—	3	3	—		—	—	—	2			—	—	—	—	—			•
	Base 2	9		3	3						2		—	—	—	—	—	—			•
	Base 3	9	—	3	3	—	—	—	—	—	2	—	—		—						•
	Base 4	9	—	4	3	—	—	—	—	—	2						—	—			•
	Base 5	9	—	3	3		—	—	—	—	2	—	—	—	—	—	—	—			•
	Remote 1		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			•
	KANSK																				
	Base 1	9		5	3			1			—	—	—				—				•
	Base 2			5			—	—					—	—	—	—	—	—			•
	Omsk SRF Army																				
	BARNAUL																				
	Base 1	9	—	5	3	—	1	—	—	—	1	—	—								•
	Base 2	9		5	3	—	1	—	—	—	1	—	—	—	—	—	—	—			•
	Base 3	—	9	5	3	—	1	—	—	—	1	—		—	—	—	—	—			•
	Base 4	0	0	5	—	3	—	1	—	—	—	1		—	—	—	—	—			•
	NOVOSIBIRSK																				
	Base 1	9	—	4	3	—	—	—	—	—	2	—	—	—	—	—	—	—			•
	Base 2	9	—	4	3	—		—			2	—	—	—	—	—	—	—			•
	Base 3	9		4	3	—	—	—	—	—	2	—	—				—				•
	Base 4	9	—	4	3	—	—	—	—	—	1						—	—			•
	Base 5	9		4	3	—		—	—	—	2	—	—	—	—			—			•
	Base 6	9	—	5	3	—	—	—	1	—	1	—	—	—	—	—	—	—			•
CENTRAL USSR	**Orenburg SRF Army**																				
	VERKHNYAYA SALDA																				
	Base 1	9	—	3	3	—	—	—	—	—	2										•
	Base 2	9		3	3					—	2		—	—		—					•
	Base 3	9	—	3	3	—	—	—	—		1						—	—			•
	Base 4	9	—	3	3	—	—	—	—	—	0	—	—	—	—			—	—		•
	Base 5	9	—	3	3	—					1					—	—	—			•

	RTP	REMARKS/COMMENTS
		Extension being added to an 11-bay garage
	RTP ucon at support cplx	
		Five bldgs still ucon in support area
		Support area
	RTP ucon at support cplx	
		Two bldgs still ucon in support area
		Bldg in support area
		Unid bldg midstg of constr road paving 0 5 nm NE of ops area
	Complete SBG at RTP	24 housetrailers remain, footings for new bldg

WESTERN USSR

Vladimir SRF Army

YURYA																	
Base 1	9	—	3	3	0	—	—	—	—	1	—	—	—	—	—	—	*	
Base 2	9	—	3	3	0	—	—	—	—	1	—	—	—	—	—	—	*	
Base 3		—	3	3	0	—	—	—	—	1			—	—	—	—	*	
Base 4	9	—	3	3	0	—	—	—	—	1			—	—		—	*	
Base 5	9	—	3	3	0	—	—	—	—	1							*	

Smolensk SRF Army

DYATLOVO	9	—	4	3	—	—	—			1	—		Dyatlovo NPH-F				RTP assoc when SS-4	
LIDA	9	—	4	3	—	—	—	—		1	—	0	—	0	—	0	No assoc RTP	
POLOTSK 1	9	—	3	3	—	—	—	—	1	2	—	1	—	1		1	RTP expansion	New prob ten-bay garage ucon n support area
POLOTSK 2	9	—	3	3	—		—	—		1		0		0		0		
POSTAVY	9	—	3	3	—		—	—	—	2		1		1		1		Multibay garage ucon in NPHF
PRUZHANY 1			4	—		—	—	—	—				—	—	—	—	—	—
RUZHANY 1	—		4		3	—	—	—	—				—			—	—	—
SLONIM	9	—	4	3	—	—	—	—	—	1	—	0	—	0		0		RTP ucon
SMORGON 1	9	—	4	3				—	—	2		0		1	—	1	—	—
SMORGON 2	9	—	4	3	—	—	—	—	—	1					—	—	—	*

Vinnitsa SRF Army

AKHTYRKA 1	—		4		3	—	—	—	—	—	1	—				—	—	—		Base is in of constr
AKHTYRKA 2			4					—	—		1		—	—	—					Base is in of constr
GRESK	9	—	4	3	—		—	—	—	1	—	—	1	—	1	1		No assoc RTP		Work on NPHF appears halted, b dg ucon in support area
KIVERTSY 2	9	—	4	3	—			1		1			K vertsy NPHF							
KONKOVICHI	9	—	3	3						3		1		1		1				
KOZHANOVICHI	9	—	3	3	—	—	—	—	—	3	—	1		1		1		SS-4 RTP not expanded		
KROLEVETS 1	9	—	4	3	—	—	—	—	—	1	—	0			1		1			
KROLEVETS 2			4			—	—	—	—	—	1	—				—		—			
LEBEDIN	9	—	4	3	—	—	—	—	—	1	—		Lebed n NPHF							
LUTSK	9	—	4	3	—	—	—	—	—	1	—	0	—	0	—	0	—	—	No assoc RTP	Two bldgs in support area
MOZYR	9		3	3	—	—	—	—	—	3	—	1	—	1	—	1	—			New bldg ucon in support area
OSTROG 1	—		4		2	—		—	—				—	—	—	—	—	—		
RECHITSA	0	—					—	—	—	2	—	1	—	1	—	1	—	—		
	3	—	—						—		—	0	—	0	—	0	—			
	3	—	—	—	—						—	0	—	0	—	0	—	—		
	3	—	—	—	—	—	—	—				0		0	—	0	—	—		

* The former SS-7 CBM complexes in the central and eastern USSR currently contain NPHFs under construction or complete at their RTPs, each NPHF consists of one high two-bay technical support building and a clerestory building

This table is TOP SECRET RUFF.

Table A2. C3 Activities at Deployed Mobile Missile-Associated Facilities as of 30 September 1984

	C3-Associated Structures and Mobile Antennas									Fixed Antenna Inventory										
	Large C-Shaped C3 Bldg	Small C-Shaped C3 Bldg	Rectangular C3 Bldg	C3 Bunker	11-Bay Garage	Communications Satellite Station	Mobile Satellite Communications Unit	Mobile TWIN EAR Unit	Roof-Mounted Antenna Array on C3 Bldg	Lattice Towers	Horizontal Dipole Antenna	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	STICK PIN Antennas	Retractable Antenna Masts	Mast-Mounted TWIN EAR Antennas	Comments
CHITA SRF ARMY																				
DROVYANAYA IC/IRBM DIV																				
CP/bnk			—	1	—	yes	2*	—		6	—	3	—	—	—	3	—	—	—	WOOD BINE and PARK DRIVE
CP/alt/bnk		—		1	—			*	—	2	1	4		—		2	—	—	2	Occasionally observed
Rad rcvr	—	—		1			—		—	3	—	—	—	—	2	—	—	—	2	
Rad xmtr	—	—	—	1		—	—	—	—	—	4	—	8	—	—	—	—	—	—	
Drovyanaya IRBM Regts																				
Mobile Base 1 Hq	—	—	1	—	—	—	—	yes	yes	2	—	—	—	—	—	1	—	yes*	—	Two on three-bay garages
Mobile Base 2 Hq	—	—	1	—	—	—	—	yes	yes	2	—	—	—	—	—	1	—	yes*	—	Two on three-bay garages
Mobile Base 3 Hq	—		1	—	—	—	—	yes	yes	2	—	—	—	—	—	—	—	yes*	—	Two on three-bay garages
Mobile Base 4 Hq	—	—	1	—	—	—	—	yes	yes	4	—	—	—	—	—	—	—	yes*	—	Two on three-bay garages
Mobile Base 5 Hq	—	—	1	—	—	—	—	yes	yes	2	—	—	—	—	—	—	—	yes*	—	Two on three-bay garages
KANSK IRBM DIV HQ (no BE No)			1	—	*	—	2*	—	—		4*			—			—	—	—	WOOD BINE, mobile HF equipment
Kansk IRBM Regts																				
Mobile Base 1 (no BE No)	—	—	1	—	*	—	—	—	yes	2	—	—	—	—	—	—	2	yes*	—	Ten-bay garage; two on five-bay garages
Mobile Base 2 (no BE No)	—	—	*	—	*	—	—	—	—		—	—	—	—	—	—	—	—	—	Late stages of construction; ten-bay garage
OMSK SRF ARMY																				
BARNAUL IRBM DIV HQ	—	—	1	—	—	—	1*	—	yes*	2						1				WOOD BINE, two roof mounted antenna arrays
Barnaul IRBM Regts																				
Mobile Base 1 Hq		—	1	—	*	—	—	—	yes	2	—		—	—		—	—	—	—	Nine-bay garage
Mobile Base 2 Hq	—	—	1	—	*	—	—		yes	2	—	—		—		2	—	—	—	Nine-bay garage
Mobile Base 3 Hq	—	—	1	—	*	—	—	—	yes	2	—	—	—	—	—	2	—	—	—	One nine-bay and one 11-bay garage
Mobile Base 4 Hq	—	—	ucon	—	ucon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NOVOSIBIRSK IRBM DIV																				
CP/bnk	—	—	—	1	—	—	—	—	—	8	2	1		—	—	3	—	—		
Rad rcv	—	—	—	1	—	—	—	—	—	1	2	2	—	—	1	1	—	—	—	
Rad xm	—	—	—	—	—	ucon*	—	—	—	2	7	—	6	—	—	—	—	—	—	Type C satellite commo station
Novosibirsk IRBM Regts																				
Mobile Base 1 Hq	*	—	1	—	—	—	—	—	yes	2	—	—	—	—	—	1	—	—	—	Construction resumed on this bldg
Mobile Base 2 Hq	—	—	1	—	—	—	—	—	yes	2	—	—	—	—	—	—	—	—	—	
Mobile Base 3 Hq	—	—	1	—	—	—	—	—	yes	2	—		—		—	—	—	—		
Mobile Base 4 Hq	—	—	1	—	—	—	—	—	yes	2	—		—		—	—	1	—	—	
Mobile Base 5 Hq	—	1	—	—	—	—	—	—	yes	2	—		—	—	—	—	1	—	—	
Mobile Base 6 Hq	—		1	—	*	—	—	—	yes	2	2		—	—	—	—	1	—	—	Ten-bay garage

EASTERN USSR

CENTRAL USSR

ORENBURG SRF ARMY

VERKHNYAYA SALDA IRBM DIV

CP/bnk				2		1*				9	4	1						Type C complete, second WOOD BINE identified
Rad rcvr				1						3	2	2		2	2			2
Rad xmtr											6		4	1		1		
Verkhnyaya Salda IRBM Regts																		
Mobile Base 1 Hq			1				yes	yes	2									
Mobile Base 2 Hq			1				yes	yes	2									
Mobile Base 3 Hq			1					yes	2									
Mobile Base 4 Hq		1						yes	4									
Mobile Base 5 Hq		1						yes	2									

VLADIMIR SRF ARMY

YOSHKAR OLA ICBM DIV

CP/bnk/hd				2		yes				4	2	2			1		2	
Rad rcvr*				1														Inactive
Rad xmtr											7		2					
Rad xmtr NE/bnk*				1							3		8			1		
Yoshkar-Ola Mobile Missile Regts																		
Mobile Base 1																		Ten-bay garage

YURYA IRBM DIV

CP/bnk				1		1*				9	3	1				2		Type C satellite commo station complete
Rad rcvr				1						3	8				2			2
Rad xmtr											8					4		
Yurya IRBM Regts																		
Mobile Base 1 Hq		1							yes	2								
Mobile Base 2 Hq		1							yes	2								
Mobile Base 3 Hq		1			1				yes	2								R-400/-404 unit identified
Mobile Base 4 Hq		1							yes	2								
Mobile Base 5 Hq		1			1				yes	2								

WESTERN USSR

SMOLENSK SRF ARMY

LIDA IRBM DIV

CP/bnk				3						4	1				3			
Rad rcvr										2		2*			2			Double rhombic antennas
Rad xmtr										4		4*	3		1			Two rhombic antennas ucon
Dyatlovo IRBM Regt																		
Mobile Base Hq (no BE No)			1		1				yes	2	2					1		
Support bunker*																		Formerly an MRBM regt CP/bnk (same BE No)
Rad xmtr											4			2		1		
Lida IRBM Regt																		
Mobile Base Hq			1						yes	2	2					1		
Slonim IRBM Regt																		
Mobile Base Hq			1		1			yes	yes	2	2							
Support bunker*																		Formerly an MRBM regt CP/bnk (same BE No)
Rad xmtr*											4			2				Formerly an MRBM regt xmtr (same BE No)

Table A2. C3 Activities at Deployed Mobile Missile-Associated Facilities as of 30 September 1984 (Continued)

		C3-Associated Structures and Mobile Antennas										Fixed Antenna Inventory										
		Large C-Shaped C3 Bldg	Small C-Shaped C3 Bldg	Rectangular C3 Bldg	C3 Bunker	11-Bay Garage	Communications Satellite Station	Mobile Satellite Communications Unit	Mobile TWIN EAR Unit	Roof-Mounted Antenna Array on C3 Bldg	Lattice Towers	Horizontal Dipole Antenna	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	STICK PIN Antennas	Retractable Antenna Masts	Mast-Mounted TWIN EAR Antennas	Comments
WESTERN USSR																						
Ruzhany IRBM Regt																						
	CP/bnk	—	—	ucon	1	ucon	—	—	—	—	—	—	—	—	—	1	—	—	—	—	Formerly an MRBM regt CP/bnk (same BE No)	25X1
	Rad rcv	—	—	—	—	—	—	—	—	—	4	—	—	2	1	2	—	—	—	—	Formerly an MRBM regt rcvr (same BE No)	
POSTAVY IRBM DIV																						
	CP/bnk	—	—	—	3	—	1	—	—	—	4	4	—	—	1	—	8	—	3	—		25X1
	Rad rcv	—	—	—	1*	—	—	—	—	—	5	—	—	—	—	—	—	—	—	3	Five van trucks & trailers at bnk	
	Rad xmt	—	—	—	—	—	—	—	—	—	—	10	—	—	2	—	6	—	—	—		
Polotsk IRBM Regt																						
	Mobile Base 1 Hq	—	—	1	—	—	—	—	—	—	—	2	—	—	—	—	3	—	—	—	Formerly an MRBM regt CP/bnk (same BE No)	25X1
	Mobile Base 2 Hq	—	1	—	—	1	—	—	—	yes	—	2	—	—	—	—	1	—	—	—		
	Rad xmtr	—	—	—	—	—	—	—	—	—	—	6*	—	—		—	1*	—	—	—	Two horizontal dipoles removed. mast supports FORK REST antennas	25X1
Postavy IRBM Regt																						
	Mobile Base Hq*	1*	—		1	—	—	—	—		—	2	—	—	—	—	2	—	—	—	Former MRBM regt CP/bnk (same BE No), unid bnk ucon behind bldg	25X1
Smorgon IRBM Regt																						
	Mobile Base 1 Hq*	—	—	1	—	—	—	—	—	—	2	2	—	—	—	—	1	—	—	—	Formerly an MRBM regt CP/bnk (same BE No)	25X1
	Mobile Base 2 Hq	—	1		—	1	—	—	—	yes	2	2	—	—		—	1	1	—	—		
	Rad xmtr*	—	—	—	—	—		—	—	—	—	8		—	1	—	1			—	Formerly an MRBM regt xmtr (same BE No)	25X1
VINNITSA SRF ARMY																						
LUTSK MR/IRBM DIV																						
	CP/bnk	—	—	—	3		—	—	—			4			—		4		—			25X1
	Rad rcv		—		1	—	—	—	—	—	—	2	—	2	2	2	3*		—	—	Two masts support FORK REST antennas	
	Rad xmt	—	—	—		—	—	—	—	—	—	5	—	4	2	—	3	—	—			
Ostrog IRBM Regt																						
	CP/bnk*	—	—	ucon	1	ucon	—	—	—	—	—	2	—	—	—	—	3	—		—	Formerly an MRBM regt CP/bnk (same BE No)	25X1
	Rad rcvr	—	—		1	—	—	—	—		—	6	—	—	—	1	2	—	—	—	Formerly an MRBM regt rcvr (same BE No)	
Kivertsy IRBM Regt																						
	Mobile Base Hq		—	1	—	*	—	—	—	yes	2	2	—	—	—	—	—	—	—	—	Ten-bay garage	25X1
	Rad sta*	—	—	—	1	—	—	—	—	—	—	1		—	—	—	1	—		—	Formerly an MRBM regt CP/bnk (same BE No)	25X1
Lutsk IRBM Regt																						
	Mobile Base Hq (no BE No)	—	—	1	—	1	—	—	—	yes	2	2	—	—	—	—	—	2	—	—		
	Rad sta	—	—		1		—	—	—	—	—	—	—	—		—	2	—	—	—	Formerly an MRBM regt CP/bnk (same BE No)	25X1

MOZYR IRBM DIV																				
CP bnk		—	—	—	3	—	Type A				2	—			—	3		—	3	Prob computer b dg near bunkers ucon
Rad rcvr		—	—	—	1	—	—	—	—	—	4			2	2	3*			—	Two masts support FORK REST antennas
Rad xmtr			—	—	—	—	—	*	—	—	7		—	2		4*	—	—		Occasionally observed, two masts support FORK REST antennas
Gresk IRBM Regt																				
Mobile Base Hq		—	1	—	—	1	—	—	—	—	2	—			—	2*	—	—		Log periodic atop one mast
Radcom sta*		—	—	—	1	—	—	—	—	—	1	—	—	—		1		—	—	Formerly an IRBM regt CP/bnk (same BE No)
Rad rcvr		—	—	—	1	—	—	—	—	—	2		—	—	1	2	—		—	
Rad xmtr		—	—	—	—			—	—	—	5		2	—	—	1	—	—		
Konkovichi IRBM Regt																				
Mobile Base Hq*		1	—	—	1	1	—	—	—	—	2	—	—	—		3		—	—	Formerly an MRBM regt CP/bnk (same BE No)
Rad xmtr*		—	—	—	—	—	—	—	—	—	8	—	—	*	—	—	—	—		Formerly an MRBM regt xmtr (same BE No); one prob quadrant antenna
Kozhanovichi IRBM Regt																				
Mobile Base Hq		1	1	—	—	1	—	—	—	—	2	—	—	—		1		—	—	
Rad sta*		—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	—	—		Formerly an MRBM regt CP/bnk (same BE No)
Rad rcvr*		—	—	—	1	—				—	—		—	—	—	—	—	—	—	Formerly an MRBM regt CP/bnk (same BE No)
Rad xmtr		—	—	—	—	—	—	—	—	—	8	—	—	2	—	2		—	—	Formerly an MRBM regt xmtr (same BE No)
Mozyr IRBM Regt																				
Mobile Base Hq		1	1	—		—	—	—	—	—	2		—	—	—	—	—	—	—	
Rechitsa IRBM Re																				
Mobile Base Hq		1	1	—	—				—	—	2	—	—	—	—	—	—	—	—	
ROMNY IR/MRBM DIV																				
CP/bnk		—	—	—	3	—		—	—		3	2	2	—	—			—	—	
Rad rcvr		—	—	—	1	—	—	—	—		3		—	—	—	—	-		3	
Rad xmtr			—	—	—	—	—	—	—		—		—	—	—	—	—	—		Antenna field being upgraded, unid bldgs ucon
Krolevets IRBM Regt																				
Mobile Base 1 Hq (no BE No)		—	—	1*	—	1	—	—	—	yes	2	2	—			—	—	2	—	Unid construction
Mobile Base 2 Hq* (no BE No)		—	—	ucon	—	ucon	—	—	—	—	—		—	—	—	—	—	—	—	Facility in early stages of construction
Rad sta*		—			1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	Formerly an MRBM regt CP/bnk (same BE No)
Rad xmtr		—	—	—		—	—	—	—	—	6				—	2	—	—	—	Formerly an MRBM regt xmtr (same BE No)
Lebedin IRBM Regt																				
Mobile Base Hq*		—			2	1	—	—	—	—	2	—	—	—	—	—	—	1	—	Unid bldg ucon
Akhtyrka IRBM Regt																				
CP/bnk*		—	—	ucon	1	ucon	—	—	—	—	—	1	—	—	—	—	2	—	—	—	Formerly an MRBM regt CP/bnk (same BE No)
Rcvr/bnk		—			2	—	—	—	—	—	—	6	—	—	—	1	2	—		—	Formerly an MRBM regt rcvr/bnk (same BE No)
Mobile Base Hq* (no BE No)		—	—	ucon	—	ucon	—	—	—	—	—	—	—	—		—	—	—	—	—
Rad xmtr*			—	—	—	—	—	—	—		—	6	—	—	—	—	5	—	—	—	Formerly an MRBM regt xmtr (same BE No)

All deactivated facilities have been dropped from this table

*See Comments

Darker shading denotes facilities providing onsite support for mobile bases

This table is TOP SECRET RUFF.

SS-20 Field Training Areas

A2. The following is a comprehensive list of 91 NPIC-confirmed SS-20 field training areas (FTAs; Table A3). Ninety FTAs have been identified since the first one was detected at Novosibirsk on [redacted] A field training area is defined as an area outside SS-20 facilities where field-deployed SS-20 associated vehicles or substantial evidence of their presence, such as TEL leveling-jack imprints, have been observed. FTAs may contain drive-through or drive-in revetments or be positions where no physical preparations are visible. (TSR)

A3. The SS-20 FTA naming system (Figure A8) was coordinated throughout the Intelligence Community and is used when naming new training areas. The first part of an FTA name is the SSM complex with which the training area is functionally associated. If functional association cannot be determined, the place name of the closest SSM complex is used. The abbreviations FTA and FTA/R indicate unrevetted and revetted field training areas, respectively. A three-digit number represents the chronological order of observation within the SSM complex, with leading zeros to ensure proper order. The next three numbers in the name are the azimuth of the training area from the centerpoint of the SSM complex relative to geographic north. The final part of the name, separated by a slash (/) from the azimuth, is the distance in tenths of nautical miles between the centerpoints of the SSM complex and the field training area. (S/WN)

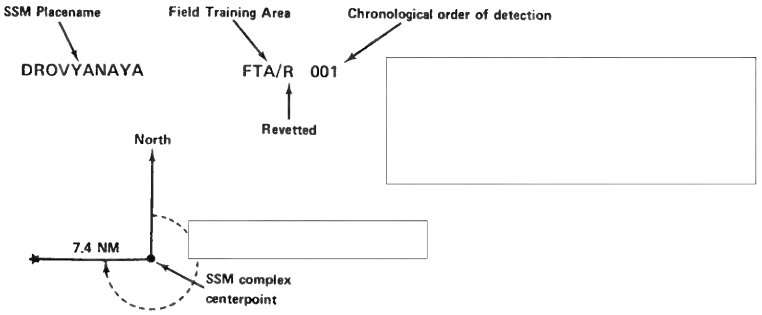

FIGURE A8. FTA NAMING SYSTEM

Table A3. SS-20 Field Training Areas

Installation	[redacted]	Previous Name	[redacted]
Mozyr FTA 001		None	
Kozhanovichi FTA/R 001		1A-RVT, LP-1	
Postavy FTA/R 001		1A-RVT, 1A, LP-1	
Postavy FTA/R 002		1B-RVT, LP-2	
Postavy FTA/R 003		1C-RVT, LP-3 Tng	
Postavy FTA 004		None	
Smorgon FTA/R0		2A-RVT, SSM Tng	
Yelsk FTA 001		LP-3, LS-1 Driver Tng Area, Mozyr Divisional Driver Training	
Vselyub FTA 001		LP-4, LS-2	
Yurya FTA/R 001		3A-RVT	
Yurya FTA/R 002		3B-RVT	
Yurya FTA/R 003		3C-RVT	
Yurya FTA/R 004		2A-RVT	
Yurya FTA 005		RA	
Yurya FTA 006		SS-20 Tng Area	
Yurya FTA 007		RB	
Yurya FTA 008		None	
Yurya FTA 009		None	
Yurya FTA 010		None	
Yurya FTA 011		None	
Yurya FTA 012		None	
Yurya FTA 013		None	
Yurya FTA 014		None	
Yurya FTA 015		None	
Yurya FTA 016		None	
Yurya FTA 017		None	

25X1

25X1

Table A3. (Continued)

25X1

25X1

Installation	Previous Name
Drovyanaya FTA	1A-RVT
Drovyanaya FTA	1B-RVT
Drovyanaya FTA	1C-RVT
Drovyanaya FTA	1D-RVT
Drovyanaya FTA	3A
Drovyanaya FTA	3B-RVT
Drovyanaya FTA	3C
Drovyanaya FTA	3D-RVT
Drovyanaya FTA	2A-RVT
Drovyanaya FTA	5A-RVT
Drovyanaya FTA	5B-RVT
Drovyanaya FTA	5C
Drovyanaya FTA	5D
Drovyanaya FTA	RA-RVT
Drovyanaya FTA	RB-RVT
Drovyanaya FTA	RC
Drovyanaya FTA	RD
Drovyanaya FTA	SA-RVT
Drovyanaya FTA	SB-RVT
Drovyanaya FTA	SC
Drovyanaya FTA	None
Drovyanaya FTA	5E
Drovyanaya FTA	None
Drovyanaya FTA	None
Drovyanaya FTA	None
Drovyanaya FTA	None
Drovyanaya FTA	None
Drovyanaya FTA	None
Drovyanaya FTA	None
Drovyanaya FTA	None
Novosibirsk FTA	RA-RVT
Novosibirsk FTA	RB-RVT
Novosibirsk FTA	RC-RVT
Novosibirsk FTA	RD-RVT
Novosibirsk FTA	None
Novosibirsk FTA	2A
Novosibirsk FTA	2B
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Novosibirsk FTA	None
Verkhnyaya Salda FTA	1A, RA-RVT
Verkhnyaya Salda FTA	1B, RB-RVT
Verkhnyaya Salda FTA	2A-RVT
Verkhnyaya Salda FTA	Driver Tng
Verkhnyaya Salda FTA	None
Verkhnyaya Salda FTA	None
Verkhnyaya Salda FTA	None
Verkhnyaya Salda FTA	None
Verkhnyaya Salda FTA	None
Verkhnyaya Salda FTA	None
Verkhnyaya Salda FTA	None
Kansk FTA	None
Barnaul FTA	None

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Table A4.
SRBM Launch Units—SCALEBOARD (SS-12) Brigades

Installation/BE No	Geographic Coordinates	Remarks
CZECHOSLOVAKIA		
Hranice Bks Maehrisch 002/Hq	49-33-50N	One bn
SCUD Bde	017-44-45E	
Libava Unid Mil Constr Site 2	49-36-33N	Two bn
	017-32-45E	
LENINGRAD MD		
Lomonosov Army Barracks	59-53-40N	SCALEBOARD unit
	029-46-40E	
BELORUSSIAN MD		
Lapichi Army Bks Osipovichi AL 1	53-25-34N	
	028-29-54E	
TURKESTAN MD		
Kurgancha SSM Launch Position 6	39-36-48N	
	065-52-58E	
CENTRAL ASIAN MD		
Sary-Ozek IRBM Launch Site 1	44-31-36N	
	077-46-25E	
TRANS-BAIKAL MD		
Drovyanaya SCALEBOARD Bde Hq/	51-33-04N	
Bks AL 1	113-01-52E	
FAR EAST MD		
Novosysoyevka SSM Launch Position 1	44-12-03N	
	133-26-20E	
SIBERIAN MD		
Novosibirsk Tactical SSM Support Fac	55-16-05N	
	082-59-58E	

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Table A5.
SRBM Launch Units—SCUD B (SS-1C) Brigades*

Installation/BE No	Geographic Coordinates	Remarks**

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Table A5. (Continued)

Installation/BE No	Geographic Coordinates	Remarks**
NORTHERN GROUP OF FORCES (NGF)		
Borne Hq/Army Bks Sulinowo 201	53-34-50N 016-32-30E	Hq NGF
CENTRAL GROUP OF FORCES (CGF)		
Turnov Tac SSM Spt Fac/TA 401	50-36-05N 015-08-40E	Hq CGF
SOUTHERN GROUP OF FORCES (SGF)		
Dombovar Arty Bks 201	46-21-03N 018-07-14E	Hq SGF
LENINGRAD MD		
Kuyvozi Tac SSM Bks A Stor AL 5	60-13-58N 030-26-37E	MD
Luga Army Bks S AL 2	58-41-02N 029-50-01E	MD
Pinozero Tac SSM Bks AL 1	67-19-23N 032-28-57E	6th Army
BALTIC MD		
Dolgorukovo Tac SSM A Army Bks AL 1	54-24-47N 020-31-13E	11th Gds Army
BELORUSSIAN MD		
Dzerzhinsk Tac SSM Bks SE AL 2/SA-4	53-38-26N 027-12-47E	MD
Lapichi Tac SSM Bks Tsel AL 2	53-23-49N 028-28-08E	Active (5th Gds Tank Army) and reserve bde
Pruzhany SSM Fac and Army Bks AL 1	52-30-57N 024-31-04E	28th Army
Lepel Tac SSM Bks AL 7	54-58-05N 028-49-22E	7th Tank Army
CARPATHIAN MD		
Nesterov Army Bks AL 1	50-03-06N 023-58-45E	MD
Yemilchino Army Bks AL 1	50-52-08N 027-48-16E	8th Tank Army
Kremenets Army Bks AL 1	50-08-59N 025-45-40E	13th Army
ODESSA MD		
Raukhovka Tac SSM Bks AL 1	47-09-55N 030-48-40E	Active (MD) and reserve bde; reserve bde poss out of garrison

Table A5. (Continued)

Installation/BE No	Geographic Coordinates	Remarks**
Berezino Army Bks/Tac SSM Sp Fac AL 1	46-13-51N 029-11-55E	MD
Bendery Army Bks Citadel AL 2	46-50-21N 029-29-02E	14th Army
NORTH CAUCASUS MD		
Maykop SSM Launch Position 3	44-31-42N 040-00-45E	MD
Krasnodar Bks AL 8	45-05-25N 038-59-05E	MD
TRANSCAUCASUS MD		
Shaumyani Tac SSM Bks AL 1	41-19-30N 044-44-48E	MD
Stepanavan Tac SSM Bks SE AL 1	41-00-22N 044-23-15E	7th Gds Army
Baku Army Bks AL 16	40-28-45N 049-35-20E	4th Army
KIEV MD		
Kremenchug Tac SSM Bks AL 2	49-05-54N 033-25-34E	Active (MD) and poss reserve bde
Belaya Tserkov Army Bks AL 2	49-49-38N 030-04-56E	Active (1st Gds Army) and poss reserve bde
Kirovograd Tac SSM Bks AL 3	48-32-29N 032-15-57E	Active (6th Tank Army) and poss reserve bde
MOSCOW MD		
Shuya Army Bks East AL 1	56-50-29N 041-22-56E	Current SRBM unknown
TURKESTAN MD		
Bayram-Ali Tac SSM SCUD Bks AL 1/TA 1	37-36-20N 062-10-32E	Active (MD) and reserve bde
CENTRAL ASIAN MD		
Semipalatinsk AB AL 1/Hq Arty Div/SA-8	50-23-15N 080-10-23E	MD
TRANS-BAIKAL MD		
Ulan-Ude Army Hq AL 1	51-53-45N 107-31-33E	Unlocated
Nerchinsk Tac SSM Bks AL 1	51-59-15N 116-35-26E	36th Army
FAR EAST MD		
Birobidzhan MRD Hq/Bks AL 1	48-47-01N 132-53-05E	
Belogorsk SCUD Bde Hq/AL 5	50-55-04N 128-22-24E	35th Army
Anastasyevka Army Bks AL 3	48-36-02N 135-35-49E	
Spassk-Dalniy SCUD Bde Hq SSM Bks AL 3	44-35-26N 132-49-13E	
Razdolnoye SCUD Bde Bks AL-1/ SA-4 Spt	43-31-23N 131-54-19E	5th Army
SIBERIAN MD		
Krasnoyarsk Tac SSM Fac AL 9	56-18-43N 093-00-37E	MD
Krasnoyarsk Army Bks AL 2/ TA 1	56-03-02N 092-55-51E	

*Designators extracted from NDHQ Ottawa. *Order of Battle—Soviet Ground Forces, 1983*, 29 Sep 83 (TOP SECRET

**When less than the entire brigade has been confirmed at an installation, only the confirmed number of battalions is indicated

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Table A6.
SRBM Schools

Installation/BE No	Geographic Coordinates	Function	Remarks
Kazan Army School	55-47-50N 049-10-50E	School	Kazan Higher Military Engineer School
Vysokaya Army Bks AL 1	55-57-36N 049-20-32E	Training area	SCALEBOARD/SCUD/FROG officer tng
Saratov Higher Military Command School	51-34-16N 046-00-55E	School	Saratov Higher Military Command School
Ivanovsky Army Bks AL 1	51-21-27N 45-37-22E	Training area	SCALEBOARD/SCUD/FROG command tng
Kolomna Tac SSM Sup Fac	50-02-39N 038-51-40E	Training area	Kolomna Higher Artillery Command School, rear services
Luga Army Bks AL 1	58-45-06N 029-49-26E		SCALEBOARD/SCUD/SS-21/FROG specialist tng
Kamenka Military Installation	53-11-40N 044-03-30E		SCALEBOARD specialist tng
Staryy Medved Army Bks AL 1	58-18-19N 030-30-34E		SCUD specialist tng
Ostrogozhsk Army Bks	50-52-08N 039-03-38E		Driver tng

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Table A7.
SRBM Logistics—Central Facilities

Installation/BE No	Geographic Coordinates
MISSILE AIRFRAME FACILITIES	
Rybinsk Tac SSM Spt Fac	58-01-15N 038-52-48E
Mozhaysk Prob Tac SSM Spt Fac	55-28-40N 036-03-15E
Kirzhach Tac SSM Spt Fac	56-06-10N 038-44-55E
Dzerzhinsk Tac SSM Spt Fac	56-15-27N 043-13-58E
Lipetsk Tac SSM Spt Fac	52-31-11N 039-45-01E
Balakleya Tac SSM Spt Fac	49-28-21N 036-52-25E
WEAPONS REPAIR BASES	
Balakleya Ordnance Depot Central	49-27-38N 036-50-58E
Moskva Ord Dpo DO 1	55-51-22N 037-42-33E
RESERVE ARMAMENT AND EQUIPMENT DEPOTS	
Bologoye Tac SSM Spt Fac	57-43-49N 033-58-17E
Irkutsk Ord Dpo Batareynaya DO 1	52-22-57N 104-09-25E

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Table A8.
SRBM Logistics—GOF/MD/Front Materiel Support

Installation/BE No	Geographic Coordinates	Missile-Technical Unit	Function (Subordination*)
[redacted] 25X1			
NORTHERN GROUP OF FORCES (NGF)			
Borne Tac SSM Spt Fac [redacted] 25X1	53-34-57N 016-31-00E	FPRTB	RTB (Hq NGF)
Pstraze Army Barracks 210 [redacted] 25X1	51-26-44N 015-33-56E	APRTB	RTB (Army)
LENINGRAD MD			
Parakhino-Poddubye Tac SSM Spt Fac [redacted] 25X1	58-28-58N 033-29-25E	FPRTB	RTB (MD/front)
Kuyvozi Tac SSM Bks A Stor AL 5 [redacted] 25X1	60-13-58N 030-26-37E	FPRTB	RTB (MD/front), SCUD bde
Novaya Ladoga Tac SSM Spt Fac [redacted] 25X1	60-05-20N 032-19-05E	PRTB-ORPD	RTB (Army)
Kandalaksha Tac SSM Bks A Stor AL 5 [redacted] 25X1	67-12-03N 032-19-37E	PRTB-ORPD	RTB (6th Army)
BALTIC MD			
Kaliningrad Tac SSM Spt Fac [redacted] 25X1	54-35-25N 020-12-46E	FPRTB	RTB (MD/front)
Radviliskis Tac SSM Spt Fac [redacted] 25X1	55-46-30N 023-36-15E	FPRTB	RTB (MD/front)
Kedainiai Tac SSM Spt Fac [redacted] 25X1	55-16-21N 023-52-00E	PRTB-ORPD	RTB (11th GDS Army)
BELORUSSIAN MD			
Bronnaya Gora Tac SSM Spt Fac [redacted] 25X1	52-37-23N 025-04-08E	FPRTB	RTB (MD/front)
Vyshkov Tac SSM Spt Fac [redacted] 25X1	52-27-29N 031-33-22E	FPRTB	RTB (MD/front)
Dzerzhinsk Tac SSM Spt Fac [redacted] 25X1	53-35-56N 027-14-03E		RTB (Army), MD/front SCUD bde

Table A8. (Continued)

Installation/BE No	Geographic Coordinates	Missile-Technical Unit	Function (Subordination*)
Dzerzhinsk Tac SSM Bks AL 2/ SA 4	53-38-26N 027-12-47E	FPRTB, poss ORPD	MD/front SCUD bde
Lepel Tac SSM Spt Fac	54-58-17N 028-47-00E		RTB (7th Tank Army)
Lepel Tac SSM Bks AL 7	54-58-05N 028-49-22E	PRTB-ORPD	(7th Tank Army)
Osipovichi Tac SSM Spt Fac	53-19-25N 028-48-05E		RTB (5th Gds Tank Army)
Osipovichi Army Bks NE AL 1	53-18-18N 028-39-28E	PRTB-ORPD	(5th Gds Tank Army)
CARPATHIAN MD			
Shepetovka Tac SSM Spt Fac	50-14-45N 026-59-10E	FPRTB	RTB (MD/front)
Vinnitsa Tac SSM Spt Fac	49-24-16N 028-30-52E	FPRTB	RTB (MD/front)
Vladimir-Volynskiy Tac SSM Spt Fac	50-47-55N 024-16-30E		RTB (13th Army)
Vladimir Volynskiy Tac SSM Bks AL 3 (	50-51-27N 024-18-30E	PRTB-ORPD	(13th Army)
Staro-Konstantinov 1 Nuc Wpn Str	49-40-44N 027-14-54E		RTB (8th Tank Army)
Staro Konstantinov Tac SSM Bks AL 5	49-45-40N 027-10-09E	PRTB-ORPD	(8th Tank Army)
Sambor Tac SSM Spt Fac	49-28-18N 023-15-07E	PRTB-ORPD	(38th Army)
Uzhgorod Tac SSM Spt Fac	48-36-13N 022-21-50E	PRTB	(Army)
ODESSA MD			
Kolbasna Tac SSM Spt Fac	47-45-37N 029 12-47E	FPRTB-ORPD	RTB (MD/front), SCUD bde
Balta Army Bks AL 1	47-56-42N 029-36-11E	ORPD	(MD/front)
Veselyy Kut Tac SSM Spt Fac	46-04-32N 029-17-27E	PRTB	RTB (Army)
Sarata Tac SSM Spt Fac	46-03-30N 029-39-15E	PRTB	RTB (14th Army)
NORTH CAUCASUS MD			
Mozdok Tac SSM Spt Fac	43-44-37N 044-32-08E	FPRTB	RTB (MD/front)
Tikhoretsk Tac SSM Spt Fac	45-53-07N 040-02-35E	none	RTB (Army)
TRANSCAUCASUS MD			
Kilyazi Tac SSM Spt Fac	40-49-06N 049-20-48E	FPRTB	RTB (MD/front)
Tbilisi Tac SSM Bks Koda AL 4	41-34-18N 044-46-43E	ORPD	(MD/front)
Stepanavan Tac SSM Spt Fac	40-58-21N 044-23-30E	PRTB	RTB (7th Gds Army)
Baku Army Bks AL 19	40-42-29N 049-28-31E	PRTB	(4th Army)
KIEV MD			
Lozovaya Tac SSM Spt Fac	48-54-33N 036-21-44E	FPRTB	RTB (MD/front)
Bogdanovka Tac SSM Spt Fac	48-46-41N 032-30-29E	FPRTB	RTB (MD/front)

Table A8. (Continued)

Installation/BE No	Geographic Coordinates	Missile-Technical Unit	Function (Subordination*)
Kirovograd Tac SSM Spt Fac	48-31-59N 032-27-54E	PRTB-ORPD	RTB (6th Tank Army)
Uman Tac SSM Spt Fac	48-44-03N 030-03-08E		RTB (1st Gds Army)
MOSCOW MD			
Karachev Tac SSM Spt Fac	53-08-26N 034-56-50E	FPRTB	RTB (MD/front)
TURKESTAN MD			
Mary Tac SSM Spt Fac	37-34-22N 061-47-40E		RTB (MD/front)
Mary SAM Spt Fac	37-28-02N 062-03-54E	FPRTB-ORPD	(MD/front)
Kurgancha SSM Position 6	39-36-48N 065-52-58E		RTB (MD/front), SCALEBOARD bde
Nebit-Dag Tac SSM Spt Fac	39-26-08N 054-26-21E		RTB (Army)
Nebit-Dag Tac SSM Bks AL 2	39-29-52N 054-21-35E	PRTB	(Army)
CENTRAL ASIAN MD			
Arys Tac SSM Spt Fac	42-28-04N 068-49-58E	FPRTB	RTB (MD/front)
Sary-Ozek IRBM Launch Site 1	44-31-36N 077-46-25E	FPRTB	RTB (MD/front), SCALEBOARD bde
Kapchagay Tac SSM Spt Fac/ SA-4	43-54-18N 077-00-58E		RTB (Army)
Ili Army Bks AL 1	43-52-33N 077-02-11E	PRTB-ORPD	(Army)
Semipalatinsk AB AL 1/Hq Arty Div/SA-8	50-23-15N 080-10-23E	PRTB	
TRANS-BAIKAL MD			
Ulan-Ude Tac SSM Spt Fac	51-50-16N 107-48-23E	FPRTB	RTB (MD/front)
Drovyanaya SSM Launch Position 2	51-24-59N 113-04-38E		RTB (MD/front), SCALEBOARD bde
Drovyanaya SCALEBOARD Bde Hq/Bks AL 1	51-33-04N 113-01-52E	FPRTB	(MD/front), SCALEBOARD bde
Kyakhta Tac SSM Spt Fac	50-23-33N 106-24-07E	ORPD	RTB (29th Army)
Kyakhta Army Bks N AL 2	50-22-28N 106-25-24E	PRTB	(29th Army)
Aga Tac SSM Spt Fac	51-04-31N 115-10-22E	PRTB-ORPD	RTB (36th Army)
Ulan-Ude Army Hq AL 1	51-53-45N 107-31-33E	PRTB	
FAR EAST MD			
Zavitinsk Tac SSM Spt Fac	50-09-37N 129-26-53E	FPRTB	RTB (MD/front)
Mengon Tac SSM Spt Fac	50-01-04N 136-27-07E	FPRTB	RTB (MD/front)
Novosysoyevka SSM Launch Position 1	44-12-03N 133-26-20E	FPRTB	RTB (MD/front), SCALEBOARD bde
Belogorsk SCUD Bde Hq/AL 5	50-55-04N 128-22-24E	PRTB-ORPD	RTB (35th Army)
Krasnyy Kut Tac SSM Spt Fac	44-31-52N 132-49-55E	PRTB-ORPD	RTB (Army)
Ussuriysk Tac SSM Spt Fac	43-41-39N 131-59-00E		RTB (5th Army)
Razdolnoye SCUD Bde Bks AL 1/ SA-4 Spt	43-31-23N 131-54-19E	PRTB	(5th Army)

Table A8. (Continued)

Installation/BE No	Geographic Coordinates	Missile-Technical Unit	Function (Subordination*)
Maykhe Tac SSM Spt Fac	43-26-27N 132-27-29E	PRTB-ORPD	RTB (Army)
Listvenichnoye Tac SSM Bks AL 1	46-51-51N 142-46-27E		RTB (Army)
Petropavlovsk Tac SSM Spt Fac	53-05-53N 158-43-12E		RTB
SIBERIAN MD			
Novosibirsk SSM Launch Position 1	55-18-50N 083-01-52E		RTB (MD/front), SCALEBOARD bde
Novosibirsk Tac SSM Spt Fac	55-16-05N 082-59-58E	FPRTB	(MD/front), SCALEBOARD bde
Krasnoyarsk Tac SSM Fac AL 9	56-18-43N 093-00-37E	FPRTB	(MD/front), SCUD bde
Krasnoyarsk Army Bks AL 2/TA 1	56-03-02N 092-55-51E	PRTB	(Army)
URAL MD			
Sverdlovsk Tac SSM Spt Fac	56-59-14N 060-46-48E	FPRTB	RTB (MD/front)
VOLGA MD			
Syzran Tac SSM Spt Fac	53-08-54N 048-21-18E	FPRTB	RTB (MD/front)
Kamenka Military Installation	53-11-40N 044-03-30E	PRTB	Cadre

*Designators extracted from NDHQ Ottawa. *Order of Battle—Soviet Ground Forces, 1983*, 29 Sep 83 (TOP SECRET

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Table A9.
SRBM Logistics—GOF/MD/Front Weapons Repair Bases

Installation/BE No	Geographic Coordinates	Installation/BE No	Geographic Coordinates
		TRANSCAUCASUS MD	
		Tbilisi Munitions Ord Stor	41-42-33N 044-49-37E
		KIEV MD	
LENINGRAD MD		Nezhin Ord and Ammo Dpo SW DO 1/DA 1	51-01-48N 031-52-05E
Leningrad Veh Stor A Maint Dpo	59-59-11N 030-22-42E	**MOSCOW MD**	
BALTIC MD		Pavloskaya Sloboda Ord Repair Fac	55-49-00N 037-05-00E
Kaliningrad Ord Rpr P Rothenstein DO 2	54-44-34N 020-32-57E	**TURKESTAN MD**	
BELORUSSIAN MD		Tashkent Ord Dpo Urta Aul DO 1	41-11-42N 069-07-50E
Minsk Ord Dpo SE DO 1	53-51-46N 027-38-16E	**TRANS-BAIKAL MD**	
CARPATHIAN MD		Staraya Kuka Dpo Ord SW 1 DM SAM	51-44-37N 113-01-21E
Shepetovka Opd SAM Dpo DO 1	50-10-58N 027-04-59E	**FAR EAST MD**	
ODESSA MD		Khabarovsk Arty Engr Dpo	48-21-42N 135-02-18E
Voznesensk Ord Dpo DO 1	47-35-42N 031-20-14E		
NORTH CAUCASUS MD			
Novocherkassk Ord Dpo DO 1	47-24-38N 040-04-15E		

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